Health, Safety and Environmental Management Plan

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SAFETY POLICY:

In accordance with and subject to the terms and conditions of the Client and in particular, in conformity with relevant technical standards, features illustrated, developed and incorporated in this manual by **Khalid Khazal Industries Factory** are our Proposals only but not limited to the requirements and demands of Project requirements of the Site as when and where required. All appropriate and applicable HSE application procedures, method of executions, principals, policies, forms, checklists and/or related formats shall be utilized for which are incorporated in compliance to the nature of project activity thereto in order to successfully achieve Client objectives and prospects for the timely commencement and completion of the captioned project works in a most professional WORKMANLIKE manner. Moreover, by contributing the exclusively High-Tech quality level of environmental and operational services up to our extent.

Although this presentation(s) has been updated to reflect the latest our Aluminum Industry practices, exercises, as time goes on there may be a need to consider new procedures, standards, or operating conditions and we, therefore agree to issue and implement the interim right and corrective revisions or updates where or whatever appropriate to be considered as an integral part of good project management. We also ensure that it will maintain the safest possible work environment throughout the duration of its project execution operations. We are committed to provide its utmost business and support services at all times.

In fulfilling this above commitment, which is as essential and equally important as production objectives, we will provide and maintain a safe and healthful work environment and protect the public against foreseeable hazards resulting from operations. All management functions, including business line and associated management, will comply with our company's HSE regulations and Client requirements.

As one most reliable Contractor we shall provide sufficient, competent and fully qualified and skilled personnel to execute the WORK in the manner and within the time required by this Contract. This includes but not limited to the supply of support facilities, machinery, tools, plant, equipment, labor and supervision required performing the WORK according to the best recognized standard of profession for which shall be suitable for the safe and accurate performance of the WORK. The provisions of services by us is to prosecute the services with due diligence in a good workmanlike and efficient manner and according to the accepted best practices of the industry under comparable conditions.

We will ensure that our employees will observe and perform all safety related regulations which they may respectively issue. All our employees shall comply with applicable Safety and Environmental Regulations and all COMPANY Safety, Health and Environmental Requirements, and other related rules and regulations at all times. We shall take any corrective measures which are not limited to prevent the injury or death of any person, or pollution of the environment, or any damage or loss of property during our performance of the WORK in order to achieve the Project vision: **Zero injuries + Zero environmental harm + Zero Damage = Zero Harm.**

Khalid Khazal Industries Factory

1.0 HEALTH, SAFETY, ENVIRONMENTAL MANAGEMENT PLAN

1.1 HSE PLAN

1.1.2 Purpose of Safety Program:

This safety program has the purpose to PREVENT ACCIDENT and "near misses". It is the duty of Project Management to consider "accident prevention" an integral part of every operation and task of each functionary.

The execution of the Health, Safety and Environment Management Plan requires a continuous active input of all parties involved. Specific and stringent Client H.S.E. requirement have been incorporated in this Health, Safety and Environmental Management Plan and shall be adhered to at all times.

1.1.2.1 Scope:

The H.S.E. Plan lists our activities on the construction site as well as requirement for all suppliers and all subcontractors.

1.1.2.2 Deviation:

Any deviation from the H.S.E. Plan must be concurred with our Safety Engineer and Client site H.S.E. Manager and must be approved by our Project Manager and Client. Amended requirements must ensure safety execution of the activities addressed and assure the safety of the overall work site.

1.1.3 DOCUMENTATION STRUCTURE:

The system to manage hazards of the construction activities is described in this Health, Safety and Environment Plan, which gives an outline of the H.S.E. Activities applicable to the construction site. To manage the construction site H.S.E. activities, several specific plans and programs will be issued. The H.S.E. Rules & Regulation Manual will provide instruction for the execution of specific tasks.

1.1.3.1 Document Control:

Site document control procedures will apply. The Health, Safety Environment Plan has been prepared by our Project Manager and Client. Our Project Site Safety Engineer will maintain in index of all applicable H.S.E. documents showing the date of issue and valid revisions.

1.1.3.2 Definitions:

The following definitions apply to the used in this H.S.E. project plan:

1. "Project Management" is the team of managers employed by our company is its capacity as Contractor being in charge of and responsible for the construction operations of the Project.
2. "Subcontractors" shall mean each and any company entered into a Sub-Contract with our company either for carrying out on the project site part of the construction in supplying management, labor, plan & equipment and materials or for supplying onto the project site labor and/or constructional plant and equipment-only.
3. "Project Site" shall mean the entire area in-and/or on which the construction operations are being carried out on behalf of our company.
4. "Suppliers" shall mean each and any company or firm having received our Purchase Order for the supply of materials, goods, tools, instruments and equipment in conjunction operations of the project.
5. "H.S.E." shall mean Health, Safety and Environmental Protection.
6. "(Work) Site" shall mean Project construction site.

1.1.4 SAFETY PHILOSOPHY AND POLICIES:

The belief of our company is that all incidents and accidents can be and shall be prevented. This requires a proactive involvement of all persons throughout all phases of the projects.

- Awareness during design
- Explicit statement and follow up of H.S.E. requirements during the Procurement phase
- Subcontractor safety planning of all jobs Concerned field supervision in
- construction Awareness of all people involved in the construction
- activities

The following H.S.E. safety policies are applicable to the project:

- Our Company's Health, Safety and Environment Statement
- Client Safety, Health and Welfare Policy
- Client Environment Policy

1.1.4.1 Objectives:

Following are the H.S.E. objectives for the project:

- To execute all activities in a safe, healthy and environmentally
- responsible manner
  To achieve the safety targets as established for the Project, as identified below

- To ensure compliance with the coordination procedure

1.1.4.2 Targets:

The safety targets established for the project are to experience no facilities, no lost work day cases (LTI) and a Total Recordable Incidence Rate (TRIR) of not greater that 1.0.

1.1.4.3 Definitions:

LTI – Lost Time Incident:

- Any occupational injury or illness that in one (1) or more days away from work, excluding the day of the accident or onset of illness. The LTI figure is the sum of fatalities, permanent total disabilities and lost workday cases.

TRIR – Sum of occupational injuries that result in:

- Fatalities
- Loss workday cases
- Medical treatment cases
- Restricted workday cases

1.1.5 SUBCONTRACTORS ROLES:

1.1.5.1 Policy and Strategy:

It is essential that all subcontractors operating on the project site are aware of our company's safety standards and their responsibility towards both maintaining and promoting a safety environment of employment. They must participate in the project safety program and conform to the standards, regulations and procedures of this site safety execution plan.

1.1.5.2 H.S.E. Supervision:

A full-time safety engineer located on site is required when his total work force exceeds fifty (50) persons. The subcontractor's safety supervisor shall be required to actively ensure proper implementation of the H.S.E. Plan. In cases where the work force is under fifty (50), the sub-contractor may assign the responsibilities for H.S.E. supervision and coordination to an employee who is a member of the Subcontractor's Site and is full-time available at the Construction Site. Such representatives, of all parties, being a qualified, authorized competent person.

1.1.5.3 Competent Personnel:

The subcontractor shall demonstrate that all personnel are competent for the task for which they are assigned. Specific tasks require qualification, such as:

- Windows & Doors Installation
- Scaffolding Hoisting and
- transportation
- Cladding
- Etc.

Specific qualification requirements will be defined separately. The process for qualification will be documented. A log will be kept of qualified people.

1.1.5.4 Adherence to rule and regulations:

Subcontractors are responsible to demonstrate adherence, especially for those-requirements that are not apparent in the field activities, like personnel training, equipment inspection etc.

Subcontractors must follow our company's inductions and trainings and they must familiarize themselves with the H.S.E. information provided to them and ensure that this information is disseminated appropriately within its own organization and translated into plans and actions. Such inductions and training shall be documented and such has to be transmitted to contractors in written form.

Our Site H.S.E. organization will monitor Subcontractor's H.S.E. performance on a continuous basis. The Subcontractor Coordination Meetings will begin with a detailed review of safety matters. Certain Subcontractor's activities will be controlled via a Work Permit System.

1.1.6 SAFETY CONSIDERATION IN SUBCONTRACTING:

1.1.6.1 Safety Meeting:

Selection of Subcontractors will into account their capability to comply with project H.S.E. requirements.

1.1.6.2 Substance Abuse Prevention Policy:

Our Company does not permit any illegal substance or alcoholic beverages on the job site.

1.1.6.3 Prequalification Requirements:

During the bidding stage, the H.S.E. requirements are communicated to qualified subcontractors. They must have a thorough understanding of the implications of all H.S.E. requirements referred to in this Plan.

A Site visit is required. This "Job Walk" is conducted to ensure that H.S.E. requirements are addressed relative to the intended scope of work. Visits to site will require 24 hour prior notice for notification to Client security and I.D. form for entrance processing. All Visitors will attend a safety orientation prior to site entry.

1.1.7 CONSTRUCTION SAFETY PLANNING:

1.1.7.1 General Requirements:

Our company will identify and adhere to all applicable legal requirements regarding H.S.E. and will require its subcontractors to do the same.
Our company will follow all applicable H.S.E. procedures, rules and regulations, including Project procedures, local legal requirements and Client requirements.

Subcontractors must demonstrate an understanding of and comply with these procedures, rules, regulations and general requirements.

1.1.7.2 Site Safety Manual:

Our Safety Coordinator/Inspector will develop the Construction Site Safety Manual. This manual will include the minimum work standards, safety rules and the detailed safety procedures for the Work Site to which all subcontractors have to comply. This manual will be consistent with the Client Site safety Manual.

1.1.8 TRAINING AND INDOCTRINATION:

1.1.8.1 Training Program:

Indication Session

Every person assigned to work at the Construction Site, must participate in the H.S.E. indoctrination session before starting work.

After successful completion of the introduction session, a helmet sticker will be provided. This provides visual assurance that the worker has received the introduction session.

The introduction session will focus on:

- General and specific Construction Site Rules and Regulations
- Specific job hazards
- Management and Safety organization
- Emergency preparedness and Emergency response
- First Aid and security
- House keeping and hygiene

1.1.8.2 Further Training:

Our company as well as subcontractors is responsible for developing and implementing a training program for their own personnel. This training program will focus on awareness of:

- The H.S.E. rules and regulations of general nature
- H.S.E. rules and regulations specifically applicable to the activities of the subcontractor
- The importance of adherence to the rules and regulations

This program will ensure that new employees are trained as soon as possible after their introduction and it will ensure refresher training's for those who remain on the Construction Site for an extended period of time. The training will address current H.S.E. risks, and its contents will therefore be adapted over the construction period.

1.1.8.3 Specific training may result from the Job Safety Analysis; examples might be:

- Working above grade elevation
- Chemical cleaning

Billboards and banners will be used in communication certain types of information and messages on H.S.E. performance.

Instruments will be used, such as:

- Posters
- Competitions
- Displays
- Billboards that will typically show:
  - Year to date and project to date man-hours

- Monthly and year to date, lost time injury frequency rates
- H.S.E. Slogans

1.1.9 HEAVY LIFTS:

All operations involving cranes, material hoists and other heavy lifting equipment shall follow special procedures as detailed in the Client. Rules and Regulations Manual. We will ensure that all lifting operations be executed in a controlled and safe manner and that all applicable inspection certificates for the involved equipment have been issued by duly authorized agencies as directed by the Client Representative. More stringent regulation applies for "critical and heavy" lifting equipment. The erection subcontractor shall provide detailed rigging plan for approval by our Safety Engineer and Client Representative. Critical lifts are those in which the loads pass over or near operating equipment, pipelines and power lines. For all hoisting operations the Site Rigging Engineer shall submit involving loads of exact capacities, a hoisting plan are involve for approval. All additional safety requirements as detailed in the Client H.S.E. Rules & Regulations Manual will be complied.

1.2 CONSTRUCTION TOOL AND EQUIPMENT:

1.2.1 Purchased items:

To ensure that purchased items are safe and environmentally friendly, the H.S.E. requirements will be incorporated in the product specifications. Hazardous materials will be assessed on their hazardousness before they are admitted to the Construction Site. For all hazardous goods, product data sheets must be available. These requirements also apply to goods and services purchased by our Site Organization and any subcontractors' Site Organization.

1.2.2 Construction Equipment:

All equipment that needs to be certified before use will be so identified and (copies of) valid certificates shall be available at the Site. Examples are:

- Heavy Construction Equipment
- Fire extinguishers

The equipment and the pertinent certificates will be inspected before admittance to the Construction Site. Copies of such required certificates will be supplied to contractor.

The subcontractor must properly maintain and inspect his construction equipment. Maintenance and inspection reports must be kept on file. Maintenance shall be done in an environmentally friendly way, avoiding the use

of hazardous products and consumables, preventing pollution and minimizing waste.
The inspection/maintenance status must show-on the equipment itself as to allow status verification by the user sticker, labels or the like must show the next inspection/maintenance date.

1.2.3 Fire Protecting/Fire Fighting:

Fire extinguisher will be provided at all work locations and fully comply with Client requirements with regard to fire protection/fire fighting.
An adequate number of employee's needs to be trained as to properly use the fire fighting equipment and to control fire hazard. Fire protection/prevention shall be a subject of attention during safety meetings and be included in employees' pre-work induction courses.

1.2.4 Fire Extinguishers:

An adequate number of portable fire extinguishers will be placed in the following areas:

- Offices, Warehouses, store sheds, changing rooms, accommodation building (camps) and Workshops
  Class A fire: Multipurpose Dry Chemical (Monoammonium Phosphate) Extinguishers.

- (Open-air) storage area. Oxygen & Acetylene bottles shaded & fenced storage area.
  (Sodium Bicarbonate) or Carbon Dioxide extinguishers.

- Live electrical equipment: Equipment, Motors, Generators, Switches, appliances
  Class C fire: as above for class B fire extinguisher

- All applicable work areas
  Class ABC or applicable class extinguisher

The fire extinguisher will be numbered and recorded in a logbook stating date of delivery, date and precise location installed, date of inspection by manufacturer/distributor and other relevant particulars for each extinguisher. Once per year the manufacturer or distributor on proper operating condition will inspect the fire extinguisher. Copies of such certifications will be supplied to

contractor. Fire extinguisher shall be inspected monthly by the contractor & indicate on the inspection
tag the status.

1.2.5 Medical Facilities:

1.2.5.1 Company Doctor:

Arrangement had been made with a locally practicing Physician (or clinic of Physician) to act as the Company Doctor during the period of construction operations on the project site.

1.2.5.2 First Aid Station & Ambulance:

A first Aid Station will be established and operated on the project site as required. The first aid station will be manned during working hours by locally hire industrial nurse and set up, controlled, supervised by our company locally hire Company Doctor, who will be available on call and for periodical visit. A stock of common medicines such as antibiotics, analgesics, antiseptics, antihistamine, cough mixtures, lozenges and skin ointment will be kept in the first aid station upon recommendation of the Company Doctor. An ambulance will be provided for transportation of injured personnel. The first aid station will operate under the supervision of the locally hired doctor or hospitals.

1.2.5.3 First Aid:

Each work site will be fitted out with a First Aid Kit in a weather proof metal or plastic box initial medical care by a First Aid qualified employee. The contents of the First Aid Kits will be checked once every month to ensure that expended items are replaced.

1.2.5.4 Physical Qualification of Employees:

Each Employee at the beginning of the engagement in the work needs to undergo a medical examination to ensure that he is medically fit and healthy as well as physically and emotionally qualified for performing the duties to which he is assigned.

Equipment operators & vehicle drivers will be checked, and if necessary trained of their ability to read and to understand the signs, signals and operating instruction in the use of their respective plant-or equipment item or vehicle or vessel.

1.2.5.5 Reporting and Registration:

All consultation and first aid treatments will be registered systematically. When the reason for the health problems is an accident/incident, the standard accident/incident investigation procedure will be followed. Once a week, the nurse will prepare a report with an analysis of all medical treatments. Serious accidents/incidents will be immediately reported to our Project Manager & Client.

Compilation of weekly report shall be supplied to Client. Qualification of classification of injury or illness shall be pursuant to the OSHA record keeping guidelines booklet.

1.2.5.6 Temporary Construction Utilities:

- Potable water will be made available by Client
- Sanitary waste will be collected and disposed off site. Necessary arrangement will be made by our company.
- Construction power generator will be made available by Client.

1.2.5.7 Site Security:

We will comply with Client site plan and implement all Client security requirements.

1.2.6 Personnel Identification:

All Khalid Khazal – Subcontractor's, Owner's, and Architects/Consulting Engineers' personnel assigned to perform their duties on the Project site, including the site offices and canteen buildings, will each receive an individually numbered identification badge showing the individual's photograph and name, the company's name and particulars as needed.

Each such an individual MUST wear his badge during work time from the moment of entering the project site through the security gate until leaving the same. The identification badge must be retracted upon the termination of duly performance/assignment on the project site. Subcontractors must be obliged to advice Khalid Khazal of such duty termination of its employee(s) prior to the date of effect enabling us to retract the identification badge(s) concerned.

Each visitor to the project site of whatever origin will have to secure temporary entry permit from Client by applying in advance, must wear in full view such badge from that moment until leaving the site in returning his badge to the Security guard at the gate. The security guard will keep record of the visitor's name, his company's name, number of issued visitor's badge, Equipment/Vehicle's serial and plate numbers, date and time of both entering and leaving the project site.

1.2.7 Equipment/Vehicle Identification:

Equipment/Vehicles driven by person in the possession of an identification badge will only be allowed to enter the project site after obtaining permission of the Project Management (and the Owner).

If so permitted a permanent authorization sticker will be issued which sticker will be displayed on the equipment/vehicle concerned for allowance to enter the project site.

Motorcars of visitors will be allowed temporarily enter the project site after registration by the security guard at the entrance gate. Trucks, Lorries, vans, pick-ups, delivery equipment or materials to the site will be allowed to temporarily enter the project site and must be directed to the storekeeper for registration and for arrangement/instruction of unloading the cargo.

Passenger car type vehicles will be allowed to travel the site roadways except to contractor's designated parking areas within the contractor's designated areas. Unnecessary vehicles of all types will not be allowed on site roadways or construction areas.

1.2.8 Theft Prevention:

The project site area will be fenced during the period of construction and operation of our company. One or more entrance/exit gates will be provided in this temporary fence controlled by security guards.

Only personnel showing their identification badge, authorized visitors and authorized vehicles will be permitted to enter the project site. A record will be kept by the security guard of all entries and departures of visitors and vehicles delivering equipment and materials to site. At the end of work time during evening and night and on Fridays the fence gate(s) will be locked at all times.

Unauthorized persons and vehicles discovered to be present on the project site will be checked on possession of tools/equipment/materials, particulars of person and/or vehicle will be registered and thereafter forthwith escorted from the project site.

1.2.9 Sanitation:

1.2.9.1 Water Supply:

Potable water will be provided to the temporary site offices and all working area with disposal paper cups, to be taken from the local water supply distribution system provided by Client.

In the event water from this supply will be unsuitable for drinking purposes specific drinking water need to be delivered from this supply via a (ready available) filtration unit for that purpose. Such drinking water will be daily freshly distributed in heat-insulated containers to "remote" work places. Certification of filtration system tests results will be approved by Client before distribution.

1.2.9.2 Toilets:

Toilets will be provided according to the following standard:

- 20 or fewer persons : one facility;
- Ratio 1: 20

All such facilities will be fitted out with washing basins and soap with tissue as needed to maintain hygienic conditions. Sewage discharge of the toilet and washing facilities will be constructed via (ready available prefabricated) septic tanks of proper capacity. The effluent water from those these septic tanks will be discharged in accordance with local regulations.

1.2.9.3 Washing Facilities: Washing facilities will be provided at or near the work place for persons engaged in the application of paints, coating and the like as well as in operation where contaminants may be harmful. The facility will be adequate for removal of harmful substance.

1.3 WORK PERMITS:

1.3.1 Normal Work:

In principle the fenced off construction area is a permit free area. Each subcontractor must be required to implement the safety precautions and measures, which follow from the job safety analysis. If this requires permits, a permit system will be developed and implemented by our company in line with the Client Permit System.

1.4 WORKING WITHIN THE EXISTING PROJECT OPERATING FACILITY:

When work is required to be executed within the Project Operating facilities, proper arrangements and introductions must be made by the Client representative along with the Project organization before initiating any work. A Project designated representative will be appointed, who will be in charge of making the necessary arrangements for getting access to the site and obtaining the necessary work permits. Each contractor will be required to have one to four persons trained in Permit receivership, pursuant to Project requires, before access will be allowed. Budding of such person for entry into the existing facility will follow Project regulations.

1.5 CONSTRUCTION SITE ACTIVITIES:

1.5.1 H.S.E. Organization:

The Project Manager has overall responsibility for the H.S.E. performance on the project. The Construction Manager has overall responsibility for the H.S.E. performance on the construction site.

The task and responsibilities in respect to health, Safety and Environmental Protection of the functionaries assigned to operate on the project site have been summarized below.

1.5.2 Project Manager:

1. Be ultimately responsible for Health, Safety and Environmental Protection on the project site and secure the correction of deficiencies in these matters.

2. Establish rules, regulations and procedures in conformance with local H.S.E. Laws and Regulations and monitor the appropriate on the project site.

3. Provide all key personnel employed on the project site with a copy of the Site Safety Execution Plan.

4. Require from Subcontractors their participation in the Project Management's Safety Program including attending Safety Meetings.

5. Conduct monthly a Site Safety Meeting during which H.S.E. requirements are being reviewed and (additional) instructions in this respect are being highlighted.

6. Accompany once a month one of the Supervisors on his weekly Safety Inspection Round.

7. Review accidents, supervise correction of unsafe practices and file accident reports.

8. Discipline any employee disregarding the established safety rules, regulations and procedures.

9. Arrange for festivity after reaching milestones in good Safety Performance of the personnel and present reward for remarkably good safety action.

10. Attempt to ensure safe operation/performance by others on the project site, including Owner's representatives, personnel of Architects/Consulting Engineers, visitors, the general public and the employees of other Contractors not under control of Project Management.

11. Attends the monthly safety meeting conducted by the Client representative.

12. Communicate directly with our company's QA-H.S.E. Department Manager when needed.

13. Ensure the availability of Material Safety Data Sheet (MSDS) for each chemical material used on the project site.

1.5.3 Construction Manager:

1. Be responsible for Health, Safety & Environmental Protection on the project site and arrange for the correction of deficiencies in these matters.

2. Plan production operations so that all work will be done in compliance with the rules, regulations and procedures established in this project H.S.E. plan.

3. Instruct the Superintendents and/or Supervisors on all specific H.S.E. requirements.

4. Arrange for the availability of appropriate Personnel Protection Equipment and for providing all employees herewith.

5. Arrange for the availability for proper safety materials and protective devices and for their use.

6. Organize the safe working order of all constructional plant and equipment (to be) assigned to and (to be) employed on the project site and ensure the proper maintaining thereof.

7. Require from subcontractors their compliance with tasks, rules, regulations and procedures established in this project H.S.E. plan.

8. Accompany by-weekly in alternating sequence one of the Supervisors/Superintendents on weekly Safety Inspection Round.

9. Review H.S.E. activities and – requirements as first subject on the regular Site Staff Construction Meeting.

10. Review accidents and ensure correction of unsafe practices.

11. Provide for protection of the public from production operations.

12. Attempt to ensure safe operation/performance by others on the project site, including Owner's representatives, personnel of Architect/Consulting Engineers, visitors, the general public and the employees of other Contractors not under control of the Project Manager.

13. Attends the monthly safety meeting conducted by the Client representative.

1.5.4 Superintendents:

1. Be responsible for Health, Safety & Environmental Protection on the project site and provide for the correction of deficiencies in these matters.

2. Prepare production operations so that all work will be done in compliance with the rules, regulations and procedures established in this Project H.S.E. Plan.

3. Instruct the Supervisors on all specific H.S.E. requirements.

4. Secure the availability of appropriated Personnel Protection Equipment and the providing to all employees thereof.

5. Make sure proper safety materials and protective devices are available and used.

6. Inspect the safe working order of all constructional plant and equipment and arrange for the proper maintaining thereof.

7. Inspect Subcontractors on their compliance with the tasks, rules, regulations and procedures established in this project plan.

8. Review accidents and inspect the correction of unsafe practices.

9. Inspect the measures for protection of the public from production operations.

1.5.5 Supervisors:

1. Be responsible for and carry our safety programs at the workplace level.

2. Be aware of all safety requirements and safe working practices.

3. Organize all work activities to comply with the established safety rules, regulation and procedures as well as safe working practices.

4. Give foremen and workers precise instructions on their task and responsibility for safe and correct working methods.

5. Instruct new employees on safe working practices as well as existing employees assigned to and performing new work task(s).

6. Make sure Personal Protective Equipment has been handed out and is properly used.

7. Organize and maintain clean and tidy workplace(s).

8. Carry out every week a safety observation/inspection round of the workplace(s) and report in writing the findings to Superintendent.

9. Correct all hazards, including unsafe acts and conditions and report to Project Management.

10. Conduct every week a Safety "Toolbox Meeting" with the workers during which safety requirements and unsafe acts are being highlighted, discussed and clarified.

11. Secure prompt medical attention to any employee accidentally injured.

12. Report in writing and investigate all accidents and pay particular attention to those having caused injury to an employee.

13. Install and maintain devices to protect the public from production operations.

1.5.6 Safety Engineer/Supervisor:

1. Monitor all safety activities on the project site and report the findings to the Project Manager.

2. Ensure the adherence to all Safety Rules, Regulations & Procedures and stop an operation in case of a dangerous circumstance until remedial measure has been carried out.

3. Prepare and conduct the orientation / induction course to each (group of) employee(s) at the beginning of (its) work operation on the project site.

4. Prepare and conduct once per 3 months the training in the use of excavation and escape routes in case of emergency circumstances.

- Heavy construction & equipment operators, including handling emergency situations
- An adequate number of employees in Fire Fighting & Control
- Permit required activities
- Confined space
- Scaffolding

5. Accompany the Supervisors on their weekly Safety Inspection Round of the Work place and Operation under their specific supervision and direct responsibility.

6. Attend all weekly "toolbox meetings" of the Supervisors and the regular Site Staff Construction/Manager.

7. Attend the monthly Site Safety Meeting conducted by the Project Manager and draft the Minutes of Meeting stating the agreed follow-up actions and responsibility/referral to persons.

8. Provide the investigating expertise for reporting accidents and "near misses" by Supervisors.

9. Review the accidents and its reports resulting in recommendation(s) on (additional) remedial measures to avoid recurrence of similar accidents elsewhere on the project site.

10. Coordinate medical and first aid services where circumstances dictate.

11. Compile and process all Statistical Records and Reports in respect of Safety Performance.

12. Be in attendance of Daily Safety Meeting conducted by PROJECT Site Safety Manager.

13. Attends the monthly safety meeting conducted by the Client representative.

The above described tasks of the Project Safety Engineer are in support to the Project Manager, who is fully responsible for implementing and maintaining the Safety Standards. Ultimately it is the latter's task to ensure employee protection throughout all phases of the Project.

1.5.7 Construction Nurse:

1. Be responsible for and carry out health and first aid programs at the project site.

2. Carry out medical and first aid services to personnel employed on the project site.
3. Be in charge of the operation of the Medical Clinic established on the project site.

4. Consult with and assist the Company Doctor where circumstances dictate.

5. Ensure and monitor the adherence to the governmental health regulations & - requirements and report the findings to the Project Manager.

6. Arrange for and make sure the presence of an adequate number of First Aid qualified employees at an appropriate number of locations on the project site.

7. Select and make sure the presence of an appropriate First Aid Kit at an adequate number of locations on the project site.

8. Inspect once a month each First Aid Kit on the project site and supplement promptly each expended item of the contents.

9. Ensure the possession of a Material Safety Data Sheet (MSDS) for each chemical material used on the project site.

10. Conduct once a month a Hygienic inspection Round at all appropriate locations on the project site and report in writing the findings to Project Manager.

11. Prepare and conduct in consultation and together with the Company Doctor once every 6 months an (updating) training course to the First Aid qualified employees.

1.6 JOB SAFETY ANALYSIS:

The Construction Site Risk management system is highly dependent on the Job Safety Analysis (JSA) Procedure. This procedure will be applied at the planned stage of all jobs.

1.6.1 Make Initial Risk Assessment

This is requirement for each party involved on the project for his own activities. The initial Risk Assessment must be available in the planning stage, before the activities physically start. Combine the input from the Initial Risk Assessment with the input from the detailed Work Schedule, which gives the so-called situational risk, being the risk related to the specific situation at the job construction site at the time of execution, to arrive at a complete Risk Assessment.

Define risk control measures

Implement risk control measures

- Execute the job – in a controlled way
- Evaluate actual performance

1.7 SAFETY AND HEALTH MEETINGS:

Safety will be the first item on the agenda of every meeting. Any Health and Environmental issues shall be brought forward during the same agenda item. Meetings that specifically deal with H.S.E. area detailed below:

1.7.1 Safety Meetings

The objective of safety meetings is (a) to identity "before the fact" situations, which may lead to, unwanted incidents and (b) to review the Safety Program in relation to day-to-day activities. Communication coupled to quick positive actions is the key to successful safety procedures and therefore the following meetings are being scheduled.

1. Weekly "Toolbox Meeting" conducted by each Supervisor with his crew of workers.

2. Safety will point on the agenda of the weekly supervisory staff construction meeting under direction of the Construction Manager.

3. Once per month the Project Manager will conduct a safety meeting with attendance of all (further) members of the site management team, the Superintendent and representative(s) of all subcontractors.

4. The Project Safety Engineer will attend the above meetings and will draft the Minutes of Meeting of the monthly Safety Meeting only, stating follow-up action and responsibility to persons.

1.8 SITE INSPECTION AND AUDITS:

1.8.1 Safety Inspection/Observation Rounds:

It is an obligation of the Site Staff Personnel to regularly carry out inspection rounds to observe the status of Health, safety and Environmental requirements and measure on the site.

GOAL : To prevent unwanted incidents (accident & near misses)

PURPOSE : To increase safety awareness to demonstrate safety commitment of supervisory staff and Management.

OBJECTIVE : To recognize Unsafe Acts of individuals, to identify Unsafe Conditions of each work place

1.8.2 Audits:

We will conduct a bi-monthly safety audit to assess the level of implementation and compliance of the safety and environmental rules and regulations in line with the project's Health, Safety and Environmental Plan, on basis of which corrective actions can be introduced.

1.9 INSPECTOR & FREQUENCY:

1. Daily:
   Each Supervisor accompanied by the Project Safety Engineer, inspects and observes the work place(s) and Operation(s) under his supervision and direct responsibility. A report of each/this inspection will be made, whilst this inspection is also in preparation of the Supervisor's weekly "toolbox meeting" and copies of such shall be transmitted in a timely manner to Client management.
   "end of work time" inspection to ensure that machines switched off, valves of oxygen and gas bottles closed , tools in locked toolboxes, loose materials protected against storm, emergency lightning and warning signs placed/restored as required temporary facilities safeguarded against fire hazard, etc.
   Weekly:
2. Construction Manager accompanies in an alternating sequence one of the Supervisors on his weekly inspection round. Project Manager accompanies one of the Supervisors on his weekly inspection round.

3. Once per Months:
Project Safety Engineer arranges for safety inspection of each hoisting plant items.

Construction Nurse carries out a hygienic inspection/ observation round at all appropriate location.

In addition each Supervisor, including those of the Subcontractors, must carry out the following inspection:

1.10 ENVIRONMENT:

The Environmental Management activities are in integral part of the Safety Execution Plan.

Within the boundaries of the project situation and the contractual arrangements, the Construction Site Environment Management System will be structured according to the required standards.

All local legal requirements as well as the CLIENT requirements will be observed.

1.11 ALL PROTECTIVE EQUIPMENT (PPE):

All employees are obliged to wear Personal Protective Equipment (PPE) and the project site, except inside offices, restrooms – accommodation buildings, at all time as generally indicated in the following schedule.

Type of PPE	Areas/Locations with risk of:
▪ Safety Shoes	Standard rule in all areas
▪ Safety helmet / hardhat	Standard rule in all areas
▪ Safety goggles / spectacles	Standard rule in all areas
▪ Face Shields	Where any activity causes airborne particulates.
▪ Working gloves	Working with materials which may affect hand injury like wire ropes, rough timber, rebar's, paint.
▪ Ear muffs / plugs	Noise exceeding 85 dB(A).
▪ Respiration protection filter / cap	Dust, fine grain sand and the like.
▪ Safety harness	Working from 2.00m. or more at

	locations where no other safety devices minimize this risk.

Additional personnel protective equipment whether listed in work permit conditions, or otherwise required by Project, CLIENT or Faraj Fahad Al-Dossary Contracting Company. shall also be worn by Contractor employees at all times as required.

The PPE shall be made available and handed out to all employees on the project site by their Supervisors on behalf of Project Management.

It is compulsory of Architects, Consulting Engineers Subcontractors and Suppliers to adhere to the PPE Regulations for their personnel employed on the project site.

The Project Manager/Construction Manager will provide all visitors; including visitors of the Owner, Architects and Consulting Engineers, with the applicable PPE to be worn during their visiting round trip on the project site where after the handed out PPE needs to be returned to the Project Manager.

1.12 ACCIDENTS INVESTIGATIONS, INCLUDING ROOT CAUSE ANALYSIS:

1.12.1 Incident Handling

We will comply with this procedure as CLIENT Work Site Safety Execution Plan.

1.13 SAFETY REPORTING/RECORD KEEPING:

1.13.1 Weekly Progress Report:

As part of the Weekly Progress Report, we will report the Construction Site H.S.E. statistics in the required format.

1.13.2 Monthly Report:

As part of the Monthly report, we will report the Construction Site H.S.E. performance.

1.13.3 Accident and Incident Report:

The accident and incident reporting procedure is triggered by any of the following events:

- A near miss – being in incident with the potential to cause personal injury or damage to property or environment.
- Any personnel injury that required treatment.
- Any incident that resulted in property damage.
- Sabotage, theft, vandalism, product loss or other disturbances.
- Any incident that had a negative impact on the environment.

For this purpose, an accident/incident report form must be used and all reports will be submitted to Client within 24 hours of occurrence.

1.14 WORK SITE HAZARD COMMUNICATION PROGRAM (HAZCOM):

Tools will be in place to facilitate communication on H.S.E. items both "top-down" and "bottom-up"; these may include:
Tools that give feedback to all employees and parties concerned, such as:

- Billboards and displays

Tools that allow employees to give their input, such as:

- Near-miss reporting
- Suggestion box

MULTI-LINGUAL TRAINING AND SIGNS: It is the responsibility of our company and all

our company's subcontractors to
make sure that essential H.S.E. training will be executed in language that is understood. Also the subcontractor will ensure that signs and warnings are understood and I necessary, translated in the respective languages.

1.15 SAFETY PERFORMANCE / WORK INJURY RECORD DATA and STATISTICS:

The Project Safety Engineer will register and keep record of the (report on) accidents, "near-misses" and further relevant safety particulars for drawing up the Work Injury Record Date.

These Particulars will be reported to the Project Safety Engineer on the standard form "Period Safety Performance" to the Project Manager and our company's QA-HSE Manager at the end of each month.

At the end of every quarter of year our company's QA-H-S-E. Manager will establish the Safety Performance Statistics of the Project by filling out the standard form concerned for reporting to the Project Manager and other Khalid Khazal Industries Companyfunctionaries.
The purpose of this registration is two fold:

- To measure the progress in safety performance
- To use the date for Safety Publicity Programs

1.15.1 H.S.E. RISK ASSESSMENT AND MANAGEMENT:

H.S.E. Performance and Measurement

The H.S.E. Performance and Measurement system will be designated to:

- Allow management of the H.S.E. efforts
- Provide input for the H.S.E. Incentive Plan

1.15.1.2 Emergency Preparedness:

An Emergency Evacuation Plan will be implemented as follows:

The prevailing wind is north by northwest. Assembly point designated on the construction site

The alarms area as follows:

- Continuous siren is for fire alarm
- Intermitted (broken) blowing siren is for gas alert

All work will cease, equipment secured and turned off.

All employees will travel on cross wind to the assembly point in the event of a gas leak.

Assemble and report to supervisor for headcount.

In the event of fire, employees will assemble up wind of fire, stay of the roadways and access ways, so as not to hamper emergency equipment. On the PROJECT Site, all work will stop; equipment turned off and is secured in the event of emergency.

Personnel will travel up wind or cross wind to the assembly point designated on the Construction site. Assemble with your supervisor, headcount, supervisors will report to Project Manager and he will report to Client Safety representative and Construction Manager.

Personnel will remain at assembly area until directed by Client Management for further prompt action. There will be NO SMOKING; Mulling around or horse play during assemblies. Drills will be held once a month and documented as training requirement dictate. This Evacuation Plan is made in conjunction with Client Emergency Evacuation Plan.

1.15.1.3 Violation of Rules and Regulations

The following disciplinary action will be taken against violators of H.S.E. Rules and Regulations:
Disciplinary measures are divided in the following three classifications for implementation of penalty system: Disregarding Safety Requirement Classification causing hazard or injury to: Penalty in sequence of violation

A Individual himself or one fellow worker

FIRST : verbal and written warning

SECOND : written warning including loss of ONE day pay.

THIRD : written warning including suspension for FIVE working days without pay.

FOURTH : Termination

B MORE than one employee or whole:

FIRST : verbal and written warning work place/site

SECOND : written warning including suspension of FIVE working days without pay.

THIRD : Termination

C Entire construction operation or the: verbal and written warning General public including loss of FIVE days pay.

SECOND : Termination

1.15.1.4 RULES AND REGULATIONS:

The CLIENT Rules and Regulations Manual provides a set standard instruction that cover Activities normally encountered on a construction site. Specific Rules and Regulations that address job specific and Project Construction Site specific situation compliment this manual.

We will follow all rules and regulations documented in this manual.

2.0 GENERAL SAFETY RULES:

2.1 Safety First:

1. Personal Protective Equipment (PPE's) such as hard hats, safety spectacles and safety shoes are mandatory for all personnel at work site. Ear protection (ear plugs), respirators, face shields and similar personal protection shall be worn wherever required.

2. Fall protection (full body harness) shall be worn when working at elevated areas six (6) feet and above heights, without complete guardrails. 100% tying off of lanyard within an unguarded work platform at six (6) feet and above height is a must.

3. Work permit must first be obtained before starting any work or bringing tools, equipment or materials to the work area where permit to work is required.

4. Work permits are automatically canceled during plant emergencies. A new permit must be obtained before resuming the activity.

5. Identification badges must be displayed upon entering the construction gate, while being checked by traffic authorities and at all times while on the project site. Lost ID's must be reported immediately to Client's Representative.

6. All injuries including near miss incidents must be reported to Safety Department.

7. Smoking is allowed only at designated smoking area. Smoking violation is a terminating case.

8. Sleeping or eating elsewhere in the construction site is strictly forbidden. Eating is allowed only at designated site mess hall.

9. Equipment spotter is mandatory for any reversing / maneuvering mobile equipment and vehicles in a congested area shall be fitted with back-up alarm.

10. Loose and unbuttoned clothing is prohibited near or around rotating equipment or machines.

11. Running at site is forbidden except, in life threatening situations.

12. Use a scaffold with "OK for Use" (Green) Tag Only.

13. Never use defective tools, equipment or material.

14. Loitering around and outside fenced area and else where within restricted area is prohibited.

15. Housekeeping routine must be observed at throughout the day.

16. Horseplay is prohibited.

17. End-of-shift safety check is everyone's responsibility within his respective areas.

18. Install safety barricades where hazards exit.

19. Only authorized persons are permitted to operate constructions mobile equipment and special tools such as drills, table saws, cartridge-operated tools, etc.

20. Riding at the rear of service pick-ups forklift, pay loader and other non-transport construction equipment is discouraged.

21. Wearing of seat belts must be observed on or off the site.
22. Under no circumstance will, unauthorized personnel operate any equipment on the project.

23. Inspection of tools, equipment, including personal protective equipment, shall be observed before and after use.

24. Safety Lockout / Tag out procedure shall be observed when working on or near energized equipment.

25. Excavation in an operating or controlled facility is performed by hand digging ONLY, unless pre-arranged with and permitted (in writing) by the Client. Excavation elsewhere requires prior approval from the CLIENT.

26. Supervisors and Foremen must be constantly aware of the actual number of personnel in their respective areas throughout work shift. Signing off on a daily attendance slip and actual head count of each group by the foreman / supervisor must be done immediately at the start of work shift.

27. Any work that involves hazards substances / chemical requires MSDS / Hazard Communication training.

28 Face and head wrappings are not permitted at work. These wrappings reduce peripheral vision or sight of a person and can lead to a potential injury such as being

struck by or struck against an object. The full display of person's face too, is an important security requirement as to proper personnel identification within the Client controlled work site.

29. Everyone must exemplify a safe attitude at all times.

30. Wearing of jewelries such as bracelet and necklace are prohibited.

31. Never use your mobile phone while driving.

3.0 SAFETY OBJECTIVES, MISSION & ASSIGNMENT OF SAFETY RESPONSIBILITIES:

Our HSE Department's responsibility is to take control of overall site administration and implementation of Client's approved specific Project Safety Program and related activities. The Safety Manager shall represent our company in all safety matters with the Client and other associated contractors on the project. It also oversees Safety Supervisors and Officers and extends guidance / assistance in carrying out their scheduled duties and responsibilities.

Aside from the above, our HSE Department maintains regular coordination with Client Safety Representatives. It also actively implements On-The-Job and In-House Safety Training and similar Safety Awareness Enhancement Programs. Furthermore, it participates at Safety Steering Committees among contractors and Client and extends inputs essential for overall site Safety Management. It involves in management meetings, jobsite inspections / audits and ensures that items for action are subsequently acted upon.

Following below are the information outlined concerning the necessary safety objectives:

- Conducts / evaluates Job Safety Analyses and enforce pertinent established measures with line management.
- Provide special attention to non-routine tasks such as work on energized / de-energized equipment requiring lockout / tag out; confined space entries, critical lifts, and similar operations requiring special safety measures.
- Formulates safety related operational policies or supplemental specific procedures required by the field operation on the project and for incorporation into the approved job-specific program.
- Ensure that all Subcontractors carry out all work in accordance with Health, Safety & Environment programs.
- Conducts Safety Toolbox Meetings in conjunction with line Supervision, Emergency Safety Meetings where required. On the Job Safety Training, Pre-Deployment Safety Orientations, Joint Site Safety Inspections with the Client and other similar safety routines.
- Maintains a complete and up-to-date record of Safety Inspections/Reports, Competent/Certified Personnel, Rigging Equipment Certifications/Test Certificates,

Heavy Equipment Third Party Inspections, Safety Statistics and other required pertinent documents on project.

- Complies and submits safety reports / statistics required by Client in accordance to specified standards.
- Performs daily and documented periodic safety inspections at work site to identify report and correct unsafe conditions, methods and work practices.
- Conducts full investigation of accident/incidents including near miss incurred; identities probable causes and prepares reports of the same and ensures that established permanent preventive measures are subsequently carried out.
- Checks and ensures compliance of site work-force with the approved Safe Work Permit System / Procedure in the plant.
- Ways to improve existing work methods to better accident/incident prevention.
- Identified and foreseen safety hazards which may affect health and welfare of site employees and their execution of work.
- Areas of concern at site where stricter control is required for an effective loss prevention & loss control.
- Required changes, supplementary instructions and other safety aspects essential to improve the existing safety program.
- Encourage all trades to safety consciousness during safety toolbox meetings and to suggest ways of improving safety as well as preventing loss and damage to equipment and property.

3.1 Site Safety (In-house) Orientation:

This safety orientation provides site employees with the details on both Client and our company's applicable policies and regulations on Safety, Health, Environment, Security and related issues, which are specific to the job and project location that all site employees including subcontractors to understand fully.

Topics to be discussed during the safety orientation include but are not limited to the following:

- Management Commitment in Safety
- Project's Safety goal / objective
- Zero Incident Philosophy
- Security issues / restrictions
- Responsibilities for safety
- Safety action plan
- Job safety analysis
- Daily Safe work plan
- Supervisor's Logbook / Discrepancy Logbook
- Specific work permits for hazardous activities
- First-aid / medical emergencies
- Safety Meetings
- Mobile heavy equipment
- Traffic safety
- Accident / incident and near miss reporting

- Fire prevention / protection
- Electrical lockout / tag out
- Hand power tools Rotating tools
- Respiratory protection
- Fall protection / 100% tie-off
- Confined spaces
- Rigging / Crane Works
- Material handling
- Equipment preservation / inert gases
- Temporary supports
- Housekeeping / waste management
- Safety incentive plan

4.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) POLICY & PROGRAM

For our company's employees

4.1 RESPONSIBILITIES & SPECIFIC PROCEDURES:

4.1.1 DEFINITIONS:

4.1.1.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment includes any equipment that is required for employees to perform their job in a safe manner as specified in applicable occupational safety and health regulations. PPE does not include cloth uniforms, lab coats, hand lotion, sunscreen, baseball caps, bracelet, necklace & earrings or other equipment that is not mandated by regulation.

4.1.1.2 DURABLE EQUIPMENT:

Durable PPE items include, but are not limited to:

- Ear Muffs
- Face Shields
- Knee pads
- Leather Gloves
- Re-Usable Respirators
- Safety Glasses

- Safety Goggles
- Safety Helmets/Hard Hats

4.1.1.3 DISPOSABLE EQUIPMENT:

Disposable PPE equipment includes all articles that are not listed as durable equipment and are designed for one-time or limited use. Examples are:

- Earplugs
- Respirators, disposable
- Gloves,
- Respirator cartridges

4.1.2 RESPONSIBILITIES

4.1.2.1 ENVIRONMENTAL HEALTH & SAFETY:

Develop, implement and maintain the Personal Protective Equipment Program as directed by the Senior Director for Human Services.
Issue Personal Protective Equipment to employees required to use the PPE.

Ensure that PPE Order Forms have the appropriate administrator's signature
Track all PPE issued to individual employees.

4.1.2.2 DIRECTORS, DEPARTMENT HEADS:

Ensure that each supervisor adheres to these procedures.

4.1.2.3 DEPARTMENT SUPERVISORS:

Identify potential hazards associated with each assigned job task.

Ensure that employees under their direct supervision properly use, store, and maintain issued personal protective equipment.
Assure that necessary training and physical exams will take place prior to the employee being assigned to wear respirators or other PPE that requires training.

4.1.2.4 EMPLOYEES:

Complete PPE Order Forms for equipment that is deemed necessary by immediate supervisor.
Maintain durable PPE in good condition. Return durable PPE when requesting replacements. Dispose of significantly contaminated disposable PPE provided
hazardous waste containers (e.g. solvent and paint covered gloves into red solvent contaminated debris containers).

4.1.3 SPECIFIC PROCEDURES:

4.1.3.1 PPE ISSUE:

Employees will obtain blank PPE Order Forms, fill out requested PPE, then obtain the signature of their appropriate administrator.
Employees will bring the completed PPE Order Forms to the PPE Storage Room for issuance. If replacement of durable PPE is requested, the employee will return the old item before a new one can be issued.

Prior to issuing new equipment, the staff will:

(i) Check that the appropriate administrator has signed their PPE form.

(ii) Ask the employee if they have received the necessary physical exams and proper training.

(iii) For durable equipment, request return of said item before replacing.

(iv) For disposable equipment, check the quantities of PPE previously issued to that employee in the alphabetical PPE Issue File.

(v) Fill requested PPE order with available stock items.

4.1.3.2 EQUIPMENT ISSUE SUMMARIES:

Appropriate administrators may request an equipment issue summary for any employee enrolled in the PPE program. The HSE Dept., will then

provide a copy of PPE order forms or a summary of PPE orders filled over any specified time period.

4.1.3.3 EQUIPMENT USE AUDITS:

HSE Dept., may audit the individual use and/or need for issued PPE or special order requests.
Appropriate administrators may request that HSE Dept., perform a PPE audit and issue the results of those findings.
At a minimum, the PPE audit will include:

I. An equipment issue summary for that employee, including special orders.
II. An overview of the tasks that require use of issued or special ordered equipment.
III. An assessment of maintenance and storage practices currently employed to preserve durable equipment.
IV. Other recommendation pertinent to PPE procurement, use, and storage.

4.1.4 The use of Personal Protective Equipment in Work place:

Our Company strives to create a safe and healthy work environment for all its employees. Work place present special hazards to the individuals those working there, necessitating the application of engineering controls, administrative controls, and the use of personal protective equipment to protect against workplace hazards. The use of personal protective equipment is an integral part of minimizing hazards, but should only be considered after all other controls have been exercised.

The purpose of the Personal Protective Equipment (PPE) Program is to protect employees from risk of injury or death by creating a barrier against workplace hazards. The PPE program addresses eye, face, head, foot, and hand protection. Components of our company's Respiratory Protection Program and the Hearing Conservation program are also a part of this program.

As an employer, we are responsible for performing hazard assessments and providing personal protective equipment to employees engaged in potentially hazardous activities. Environmental Health & Safety implements the work place-wide Personal Protective Equipment Program.
We are responsible for conducting hazard assessments for the materials they use in work place, selecting the appropriate personal protective equipment, and training employees on how to protect themselves.

4.1.5 Personal Protective Equipment Program:

4.1.5.1 Policy:

Protective clothing will be provided whenever it is necessary by reason of hazards, processes or environmental conditions. The Company requires that protective clothing be used when chemical hazards, radiological hazards, or mechanical irritants are encountered in a manner capable of causing injury or impairment through absorption, inhalation, or physical contact.

4.1.5.2 Responsibilities:

The Safety and Health Manager will be responsible for assessing the hazards and exposures that may require the use of PPE, determining the type of equipment to be provided, and purchasing the equipment. Input from managers, supervisors, and employees will be obtained and considered in selecting appropriate equipment.

Managers/supervisors will be responsible for training employees in the use and proper care of PPE, ensuring that all employees are assigned appropriate PPE, and ensuring that PPE is worn by employees when and where it is required.

Employees are responsible for following all provisions of this program and related procedures. They are expected to wear PPE when and where it is required.

4.1.5.3 Purpose:

The purpose of this program is to protect our employees by ensuring that Personal Protective Equipment (PPE) is provided, used, and maintained in a sanitary and reliable condition whenever it is necessary due to hazards from processes or in the work environment. To the extent that it is possible and feasible, the company will remove or eliminate hazards or exposures through engineering means to eliminate the need for PPE.

This program covers eye and face protection, head protection, foot protection, hand protection, and electrical protection. Respiratory hazards and hearing hazards are covered by other programs, but they will also be included in the Hazard Assessment described below. This program covers the responsibilities of managers, supervisors and workers, assessment of hazards, selection and use of personal protective equipment (PPE), and training.

4.1.5.4 Procedures herein mentioned not limited to:

Personal protective clothing is to include approved lab coats, surgical caps, masks, gloves, special shirts, trousers, overalls, jumpsuits, safety shoes, hard hats, coats and smocks. As a minimum, Company furnished lab coats should always be worn during laboratory work.

Requests for all personal protective clothing not available as Company stock items are generated by the supervisor and are approved by the Safety and Health Manager. The protective clothing must be worn by the employees and visitors as dictated by Company policy. The clothing will be available only in compromise sizes (i.e. small, medium, and large).

Personal protective clothing may not be worn in the cafeteria or other food consumption areas, conference rooms, picnic areas or off campus.

Sandals, and open-toed shoes, are prohibited in laboratory, shop, warehouse, and animal housing areas.

Safety shoes should be worn by all shop, warehouse and maintenance personnel as dictated by the nature of the work. Safety shoe areas are recommended by the supervisor and approved by the Safety and health Manager. The user will be responsible for the proper cleaning, maintenance and use of the safety shoes.

Hard hats should be worn in all posted areas (e.g., locations in warehouses, shops, and building construction or renovation areas) and when performing work in which the supervisor Safety and Health Manager decides such hazards exist.

This program provides an informative overview of the various common types of personal protective equipment (PPE) used in industry and gives employees information pertaining to when and where PPE is required, how to use it and an explanation of limitations.

5.0 DISCIPLINARY PROGRAM

5.1 Role of Disciplinary Systems in the Workplace:

The disciplinary system does not exist primarily to punish employees. Its purpose should be to control the work environment so that workers are protected and accidents are prevented. A disciplinary system helps ensure workplace safety and health by letting the Company's employees know what is expected of them. It provides workers with

opportunities to correct their behaviour before an accident happens. A disciplinary system is one of the keys to successfully implementing the Company's safety and health program. It ensures that the Company's rules and safe working practices are taken seriously by employees and are actually followed. It lets employees know how the Company expects them to operate in relation to the goals of the Company's safety and health program. And it lays out the actions the Company will take if individuals do not meet the Company's expectations. The employee's supervisor and all members of management are responsible for the enforcement of this disciplinary program.

A disciplinary system cannot work in a vacuum. Before the Company can hold employees accountable for their actions, the Company first needs to establish its safety and health policy and disciplinary rules.

5.2 Policy Statement:

Employees need to know the Company's position on safety and health and what the Company expects of them. They need a clear understanding of the rules and the consequences of breaking those rules. This is true in all areas of work, but it is especially important for worker safety and health. As part of the policy statement, and in the employee safety handbook, the Company has a written statement setting forth the Company's disciplinary policy. Company managers and supervisors will always be on the lookout for safety violations and will conscientiously and vigorously enforce the Company's commitment to safety.

5.3 Employee Information and Training:

It is important that employees understand the system and have a reference to turn to if they have any questions. Therefore, in addition to issuing a written statement of the Company's disciplinary policy, the Company has drawn up a list of what it considers major violations of Company policy and less serious violations. This list specifies the disciplinary actions that will be taken for first, second, or repeated offences; Company will use the Disciplinary System.

5.4 The list for suspension or termination and grounds for immediate discharge are:

Drinking alcohol, and/or drug abuse prior to or during working hours or after working hours are against our company regulations and Saudi Arabian Government laws.

Fighting, provoking or engaging in an act of violence against another person on Company property

Theft

Wilful damage to property

Failure to wear Personal Protective Equipment (eye protection, hearing protection, safety helmets, etc.)
Disobedience to the Superior in rank.

Absent without leave.

Not using safety harnesses and lanyards when there is a potential for falling

Removing and/or making inoperative safety guards on tools and equipment

Tampering with machine safeguards or removing machine tags or locks

Removing barriers and/or guardrails and not replacing them

Failure to follow recognized construction practices

Failure to follow rules regarding the use of company equipment or materials

Major traffic violations while using a company vehicle

Engaging in dangerous horseplay

Failure to notify the Company of a hazardous situation, and

Other major violations of company rules or policies

6.0 WASTE MANAGEMENT & HAZARDOUS MATERIAL

6.1 Definition:

Various industrial plants factories developed abundant quantities of toxic material for commercial use every year. Though this material is beneficial in some ways, they posses great danger to human health and environment.

Extreme care proper precautions shall be taken to ensure that employees do not swallow, inhale or allow contact with their skin the above mentioned materials. Precautions shall always be followed as not to allow accidental mixing with other substance during transportation, storage and use. It shall not be subjected to shock, pressure or heat. Such materials shall be disposed in proper manner. Hazardous materials shall have a list indicating the type and quantity of materials use, its hazardous classification rating and quantity. Hazardous materials shall be stored in containers safe for transportation and use. Containers shall be properly labeled to indicate its content

and classification. Empty containers of these hazardous materials shall be cleaned or destroyed to avoid being reused.

Disposal of those hazardous materials shall be in accordance with applicable standards. The following procedure shall be observed for proper disposal of hazardous materials:

- Hazardous materials shall be identified by its composition or content, otherwise Loss Prevention Department or Material Handling Engineering Division shall be notified.
- Materials suspected of containing or known to contain asbestos shall be disposing in accordance with applicable standards.
- Users of hazardous materials shall follow manufactures or safety guidelines, (Material safety Data Sheets, Chemical Hazards Bulletin etc.). In case of procedure overlap, Client's Loss Prevention Department or Materials Handling Engineering Division shall be consulted.
- Hazardous material shall be adequately sealed in containers to prevent leakage and containers shall be labeled indicating its content and composition.
- Safety inspection of these materials shall be requested to Client's Loss Prevention Department.

6.2 Critical / High Risk Job Analysis:

- When large quantity of hazards material requires being dispose, Client's Loss Prevention Department or Material Handling Engineering Division shall be informed.
- Client's Loss Prevention Department or Material Handling Engineering Division directives regarding hazardous materials shall be followed.
- Hazardous materials shall be transported to a designated dumpsite with truck or vehicle designed to handle such materials.
- Prior to delivery of huge amount or volume of hazardous materials the Assistant Superintendent of Reclamation Sections shall be contacted.

6.3 A. Hazardous Waste Management Program

6.3.1 General

Hazardous liquid, leftover to human body and vapor liquid leftover, wastes contaminated by pathogen should be treated in an appropriate method such as

neutralization, precipitation, filtering, disinfection and sterilization. This must be carried out by a qualified personnel with appropriate task specific PPE.

6.3.2 Waste Control

To prevent pollution of the environment by hazardous waste, all Equipments shall be dully maintained to avoid the emission of the dripping of oil and chemicals.

In the case of operation in any equipment is observed to be leaking oil and chemicals, a drip-plate shall be positioned to collect the waste in the interim before the equipment is sent for repairs. While a drip plate used, watchman should accompany with extinguisher in view of the fire risk.

As stated above, containment shall be provided to avoid waste pollution. Waste shall not be thrown into anybody of water. Summary effort shall be geared towards elimination of all from of hazardous discharge to land, water and air.

Where total elimination is not possible, standard and conventional reduction and control measures shall be applied to cushion their effect.

6.3.3 Waste Management

Within the scope of operations, waste management shall involve the collection, segregation, storage and proper disposal of waste. To this effect, emphasis shall be laid on:

I. Source Reduction

II. Process re-engineering

III. Improved housekeeping

Contractor shall pursue high standard housekeeping.

To achieve this, waste skips (buckets) shall be provided to accommodate different categories of waste.

I. Metals shall be collected in metal skips (buckets).

II. Wood, Paper and other combustible materials shall be collected in a metal skips.

III. Organic waste shall be collected in skips for organic materials.

IV. Used oil shall be collected in drum and sent to use oil dump.

V. Used batteries shall be not mixed with combustible, metal or organic waste they shall be stored separately in a designated safety area, labeled and disposed according to environmental regulations.

6.3.4 Waste Material Disposal

1. Scrap lumber shall be placed in piles or containers Waste material and rubbish shall be placed in containers.

2. Waste material and rubbish shall not be thrown down from a height of more than 1.8M.

3. Chutes for debris shall be enclosed except for openings equipped with closures at or about floor lever for the insertion of materials. Openings at all stories below the top floor shall be kept closed when not in use.

4. Whenever materials are dropped to any point lying outside the exterior walls or the building, an enclosed chute of wood or equivalent material shall be used.

5. Separate covered non-flammable/non-reactive labeled containers shall be provided for the collection of garbage oily flammable and hazardous waste (such as caustics, acids and harmful dust) the contents will be properly disposed of daily.

6. Used roofing maps shall be stored outside the building and away from combustible materials.

7.0 RISK ASSESSMENT

Risk assessment is the process where you:

- identify hazards,
- analyze or evaluate the risk associated with that hazard, and
- Determine appropriate ways to eliminate or control the hazard.

In practical terms, a risk assessment is a thorough look at your workplace to identify those things, situations, processes, etc that may cause harm, particularly to people. After identification is made, you evaluate how likely and severe the risk is, and then decides what measures should be in place to effectively prevent or control the harm from happening.

7.1 Importance of risk assessment:

Risk assessments are very important as they form an integral part of a good occupational health and safety management plan. They help to:

- create awareness of hazards and risks,
- identify who may be at risk (employees, cleaners, visitors, contractors, the public, etc),
- determine if existing control measures are adequate or if more should be done,
- prevent injuries or illnesses when done at the design or planning stage, and
- Prioritize hazards and control measures.

7.2 The goal of risk assessment:

The aim of the risk assessment process is to remove a hazard or reduce the level of its risk by adding precautions or control measures, as necessary. By doing so, you have created a safer and healthier workplace.

7.3 Implementing a risk assessment:

assessments should be done by a competent team of individuals who have a good working knowledge of the workplace. Staff should be involved always include supervisors and workers who work with the process under review as they are the most familiar with the operation.

In general, to do an assessment, you should:

- identify hazards,
- evaluate the likelihood of an injury or illness occurring, and its severity,
- consider normal operational situations as well as non-standard events such as shutdowns, power outages, emergencies, etc.,
- review all available heath and safety information about the hazard such as manufacturers literature, information from reputable organizations, results of testing, etc.,
- identify actions necessary to eliminate or control the risk,
- monitor and evaluate to confirm the risk is controlled,
- Keep any documentation or records that may be necessary. Documentation may include detailing the process used to assess the risk, outlining any evaluations, or detailing how conclusions were made.

When doing an assessment, you must take into account:

- The methods and procedures used in the processing, use, handling or storage of the substance, etc.
- the actual and the potential exposure of workers,
- the measures and procedures necessary to control such exposure by means of engineering controls, work practices, and hygiene practices and facilities.

By determining the level of risk associated with the hazard, the employer and the joint health and safety committee can decide whether a control program is required.

It is important to remember that the assessment must take into account not only the current state of the workplace but any potential situations as well.

7.4 Identifying hazards:

Overall, the goal is to find and record possible hazards that may be present in your workplace. As mentioned, it may help to work as a team and include both people familiar with the work area, as well as people who are not - this way you have both the "experienced" and "fresh" eye to conduct the inspection.

To be sure that all hazards are found:

- look at all aspects of the work,
- include non-routine activities such as maintenance, repair, or cleaning,
- look at accident / incident / near-miss records,
- include people who work "off site" either at home, on other job sites, drivers, workers, with clients, etc.,
- look at the way the work is organized or "done" (include experience and age of people doing the work, systems being used, etc),
- look at foreseeable unusual conditions (for example: possible impact on hazard control procedures that may be unavailable in an emergency situation, power outage, etc.),
- examine risks to visitors or the public,
- include an assessment of groups that may have a different level of risk such as young or inexperienced workers, persons with disabilities.

It may help to create a chart or table such as the following:

Example of Risk Assessment				
Task	Hazard	Risk	Priority	Control
Delivering equipments to clients	Drivers work alone	May be unable to call for help if needed		
	Drivers have to occasionally work long hours	Fatigue, short rest time between shifts		
	Drivers are often in very congested traffic	Increased chance of collision		
		Longer working hours		

	Drivers have to lift accessories when delivering equipments	Injury to back from lifting, reaching, carrying, etc.		

7.5 Understanding if the hazard is serious (poses a risk):

Each hazard should be studied to determine its' level of risk. To research the hazard, you can look at:

- product information / manufacturer documentation,
- past experience (workers, etc),
- legislated requirements and/or applicable standards,
- industry codes of practice / best practices,
- health and safety material about the hazard such as material safety data sheets, or other manufacturer information,
- information from reputable organizations,
- results of testing (atmospheric, air sampling of workplace, biological, etc),
- the expertise of a occupational health and safety professional,
- Information about previous injuries, illnesses, "near misses", accident reports, etc.

Remember to include factors that contribute to the level of risk such as the:

- Work environment (layout, condition, etc.),
- capability, skill, experience of workers who do the work,
- systems of work being used, or
- Range of foreseeable conditions.

7.6 Ranking or prioritizing the risks:

Ranking or prioritizing hazards is one way to help determine which hazard is the most serious and thus which hazard to control first. Priority is usually established by taking into account the employee exposure and the potential for accident, injury or illness. By assigning a priority to the hazards, you are creating a ranking or an action list. The following factors play an important role:

- percentage of workforce exposed,
- frequency of exposure,
- degree of harm likely to result from the exposure,
- Probability of occurrence.

There is no one simple or single way to determine the level of risk. Ranking hazards requires the knowledge of the workplace activities, urgency of situations, and most importantly, objective judgement.

7.7 Options exist to rank or prioritize risks:

One option is to use a table similar to the following as established by the Construction Standards:

Risk Assessment by the Industrial Standards			
Likelihood of Harm	Severity of Harm		
	Slight Harm Very	Moderate Harm	Extreme Harm
Very unlikely	low risk Very low	Very low risk	High risk Very
Unlikely	risk Low risk Low	Medium risk	high risk Very
Likely	risk	High risk	high risk Very
Very likely		Very high risk	high risk
Note: These categorizations and the resulting asymmetry of the matrix arise from the examples of harm and likelihood illustrated within the specified Standard. Organizations can adjust the design and size of the matrix to suit their needs.			

Definitions for Likelihood of Harm

Very Likely - Typically experienced at least once every six months by an individual.

Likely - Typically experienced once every five years by an individual.

Unlikely - Typically experienced once during the working lifetime of an individual.

Very unlikely - Less than 1% chance of being experienced by an individual during their working lifetime.

Definitions for Severity of Harm

Potential severity of harm -

When establishing potential severity of harm, information about the relevant work activity should be considered, together with:

a) Part of the body likely to be affected;

b) Nature of the harm, ranging from slight to extremely harmful:

1. Slightly harmful (e.g., superficial injuries; minor cuts and bruises; eye irritation from dust; nuisance and irritation; ill-health leading to temporary discomfort)

2. harmful (e.g., lacerations; burns; concussion; serious sprains; minor fractures; deafness; dermatitis; asthma; work-related upper limb disorders; ill-health)
3. extremely harmful (e.g., amputations; major fractures; poisonings; multiple injuries; fatal injuries; occupational cancer; other severely life shortening diseases; acute fatal diseases)

Definition for Risk Level - Tolerability Guidance on necessary action and timescale

Very low - These risks are considered acceptable. No further action is necessary other than to ensure that the controls are maintained.

Low - No additional controls are required unless they can be implemented at very low cost (in terms of time, money, and effort). Actions to further reduce these risks are assigned low priority. Arrangements should be made to ensure that the controls are maintained.

Medium - Consideration should be as to whether the risks can be lowered, where applicable, to a tolerable level and preferably to an acceptable level, but the costs of additional risk reduction measures should be taken into account. The risk reduction measures should be implemented within a defined time period. Arrangements should be made to ensure that controls are maintained, particularly if the risk levels area associated with harmful consequences.

High - Substantial efforts should be made to reduce the risk. Risk reduction measures should be implemented urgently within a defined time period and it might be necessary to consider suspending or restricting the activity, or to apply interim risk control measures, until this has been completed. Considerable resources might have to be allocated to additional control measures. Arrangements should be made to ensure that controls are maintained, particularly if the risk levels are associated with extremely harmful consequences and very harmful consequences.

Very high - These risk are unacceptable. Substantial improvements in risk control measures are necessary so that the risk is reduced to a tolerable or acceptable level. The work activity should be halted until risk controls are implemented that reduces the risk so that it is no longer very high. If it is not possible to reduce the risk, the work should remain prohibited.

Note: Where the risk is associated with extremely harmful consequences, further assessment is necessary to increase confidence in the likelihood of harm. Other options include using tables such as Table 3 below.

Hazard Control Strategy: A Sample Worksheet					
Hazard	% Employees Affected	Frequency of Occurrence	Hazard Potential	Priority	Priority Rank

Ergonomics	60	H	H	60-HH	1 (?)
Back pain	80	H	H	80-HH	2 (?)
Noise	30	L	H	30-LH	3 5 4
Heat	50	L	L	50-LL	
Lasers	2	L	H	2-HL	
H = High, L = Low					

Or, Table 4, where 1 = extremely important to do something as soon as possible, 6 = hazard may not need immediate attention.

Example of Hazard Priority Setting				
	Very likely - could happen at any time	Likely - could hapen somtime	Unlikely - could happen but very rarely	Very unlikely - could happen but probably never will
Kill or cause permanent disability or ill health	1	2	3	4
Long term illness or serious injury	2	3	4	5
Medical attention and several days off work	3	4	5	6
First aid needed	4	5	6	7

7.8 Some methods of hazard control:

Once you have established your top priorities, you can decide on ways to control each specific hazard. Hazard control methods are often grouped into the following categories:

- elimination (including substitution),
- engineering controls,
- administrative controls,
- personal protective equipment

7.9 The importance to review and monitor your assessment:

It is important to know if your risk assessment was complete and accurate. It is also essential to be sure those changes in the workplace have not introduced new hazards or changed hazards that were once ranked as lower priority to a higher priority.

It is good practice to review your assessment on a regular basis to be sure that nothing has changed and that your control methods are effective. Triggers for a review can also include:

- the start of a new project,
- a change in the work process or flow,
- a change or addition to tools, equipment, machinery (including locations or the way they are used),
- new employees,
- moving to a new building or work area,
- introduction of new chemicals or substances,
- When new information becomes available about a current product.

7.9.1 Documentation to be done for a risk assessment:

Keeping records of your assessment and any control actions taken is very important. You may be required to store assessments for a specific number of years. Check for local requirements in your jurisdiction.

The level of documentation or record keeping will depend on:

- level of risk involved,
- legislated requirements, and/or
- Requirements of any management systems that may be in place.

Your records should show that you:

- conducted a good hazard review,
- determined the risks of those hazards,
- implemented control measures suitable for the risk,
- Reviewed and monitored all hazards in the workplace.

8.0 SAFETY AND HEALTH SIGNS & TAGS

8.1 Policy and Purpose:

All devices, structures and areas where hazardous materials are used, or where hazards or possible hazards may exist will be identified with appropriate hazard warnings.

Signs and tags are not intended as substitutes for preferred abatement methods such as engineering controls, substitution, isolation, or safe work practices. Rather, they are additional safety guidance and increase the employee's awareness of potentially hazardous situations.

Tags are temporary means of warning all concerned of a hazardous condition, defective equipment, etc. Tags are not to be considered as a complete warning method, but should only be used until a positive means can be employed to eliminate the hazard; for example, a "Do Not Start" tag is affixed to a machine and is used only until the machine can be locked out, de-energized, or inactivated.

The Safety and Health Manager maintains a supply of a variety of safety signs and tags for use by Company personnel.

8.2 Responsibilities:

8.2.1 Supervisor-

Posts appropriate warning signs for materials of a hazardous nature (poisonous, toxic, flammable, carcinogenic, biological hazard, radioactive, etc.) or hazardous conditions (high voltage, slippery when wet, welding arcs, etc.).

8.2.2 Employee-

1. Conducts themselves in the manner (safe procedures, protective equipment, clothing, etc.) as called for by the hazard warning signs and training.

2. Assists the supervisor in recognition of any potentially hazardous condition that may need identification by hazard warning signs.

8.2.3 Safety and Health Manager-

1. Periodically surveys all operations to ensure proper identification of hazardous areas or conditions by use of warning signs and immediately notifies supervisor of any lack of, or improper markings.

2. Assists the supervisor in defining proper identification, and acceptable location of signs in compliance with existing recognized Industrial practices, or other regulations.

3. Provides fabricated hazard warning signs.

4. Maintains a supply of all frequently used hazard warning signs.

9.0 TOOL BOX TALKS/WORK GROUP SAFETY MEETINGS

9.1 Purpose:

The purpose of Tool Box Talks/Work Group Safety Meetings is to provide a method for the dissemination of information to all employees regarding safety and health issues.

Regular Tool Box Talks/Work Group Safety Meetings demonstrate the Company's concern for the lives and well being of its employees. Tool Box Talks/Work Group Safety Meetings help build a cooperative climate by providing employees with the opportunity to contribute ideas, and to make suggestions that may improve quality, productivity, morale, and safety.

Safety education is required of all employees at all levels within the organization. The Company will have a formalized safety training program to prevent accidents and to train employees to do their job safely. Scheduled, Tool Box Talks/Work Group Safety Meetings, will be conducted weekly every Saturday at 6:00 – 6:30 a.m and at times deemed necessary by the Safety and Health Manager or supervisory personnel

9.2 Responsibilities:

The Company President will provide the direction and motivation to ensure that all managers conduct regular Tool Box Talks/Work Group Safety Meetings.

Managers and Supervisory Personnel that conduct safety discussions will maintain a log of what was discussed and who attended the meeting. This information shall be turned over to the Safety and Health Manager on a weekly basis.

The Safety and Health Manager shall be a resource for safety and health discussion topics, and shall keep all documentation of all training at a central location.

Employees are required to attend all Tool Box Talks/Work Group Safety Meetings. In the event an employee misses a Tool Box Talk/Work Group Safety Meeting, the employee shall be given individual instruction by their supervisor concerning what was discussed/covered. The supervisor shall document this "training session" and will provide the Safety and Health Manager with this documentation.

9.3 Procedure:

The Tool Box Talk/Work Group Safety Meeting is a method used by this Company to develop the employees' safety awareness.

9.4 Conducting Tool Box Talks/Work Group Safety Meetings

For greatest effectiveness, cover subjects that most interest the employees. These topics might include accidents, inspection results, the safety program, or a work procedure.

10.0 EMERGENCY RESPONSE & MANAGEMENT PLAN

Designed and written as a practical workplace training and reference tool.

10.1 Objectives

This serves as guidelines for developing a comprehensive emergency response plan. It will help you to:

- conduct a risk assessment;
- evaluate potential losses;
- identify potential emergencies;
- develop a comprehensive emergency preparedness policy and response program;
- develop a business continuity and business recovery plan;
  design, conduct and evaluate drills and exercises;
  follow-up on and learn from incidents; and
  Continuously improve the response capability.

10.2 Scope

It provides basic information to assist in the development of workplace emergency preparedness and response programs. All organizations should have an emergency response program in place. Clients expect it as an indication of reliable business operation. The content is presented by program components that apply to a wide range of business sectors.

Guidelines for establishing a comprehensive emergency preparedness program depend on:

- the potential risk of serious incidents and emergencies at the organization;
- the size of your organization; and
- The legal requirements in your jurisdiction.

10.3 Target Audience

This will help implement an emergency response plan and manage comprehensive prevention programs within the organization.

It will also assist:

- senior managers making decisions about the need for, or improvement to, emergency response plans;
- individuals assigned the responsibility of developing and implementing emergency response plans; and

Health and safety committees making informed recommendations regarding an organization's existing response plans.

10.3.1 The necessity of an emergency plan

A definite plan to deal with major emergencies is an important element of safety programs.

Besides the major benefit of providing guidance during an emergency, developing the plan has other advantages. You may discover unrecognized hazardous conditions that would aggravate an emergency situation and you can work to eliminate them. The planning process may bring to light deficiencies, such as the lack of resources (equipment, trained personnel, supplies), or items that can be rectified before an emergency occurs. In addition an emergency plan promotes safety awareness and shows the organization's commitment to the safety of workers.

The lack of an emergency plan could lead to severe losses such as multiple casualties and possible financial collapse of the organization.

An attitude of "it can't happen here" may be present. People may not be willing to take the time and effort to examine the problem. However, emergency planning is an important part of company operation.

Since emergencies will occur, preplanning is necessary to prevent possible disaster. An urgent need for rapid decisions, shortage of time, and lack of resources and trained personnel can lead to chaos during an emergency. Time and circumstances in an emergency mean that normal channels of authority and communication cannot be relied upon to function routinely. The stress of the situation can lead to poor judgement resulting in severe losses.

10.3.2 The overall objective of the plan:

An emergency plan specifies procedures for handling sudden unexpected situations. The objective is to reduce the possible consequences of the emergency by:

- preventing fatalities and injuries;
- reducing damage to buildings, stock, and equipment; and

- Accelerating the resumption of normal operations.

You should also consider potential impact to the environment and to the community in your emergency plan.
Development of the plan begins with a vulnerability assessment. These results of the study will show:

- how likely a situation is to occur
- what means are available to stop or prevent the situation and
- what is necessary for a given situation.

From this analysis, appropriate emergency procedures can be established. At the

planning stage, it is important that several groups be asked to participate.
Among these groups, the joint occupational health and safety committee can provide valuable input and a means of wider worker involvement. Appropriate municipal officials should also be consulted since control may be exercised by the local government in major emergencies and additional resources may be available. Communication, training and periodic drills will ensure adequate performance if the plan must be carried out.

10.3.3 Regarding vulnerability assessment:

Although emergencies by definition are sudden events, their occurrence can be predicted with some degree of certainty. The first step is to find which hazards pose a threat to any specific enterprise.

When a list of hazards is made, records of past incidents and occupational experience are not the only sources of valuable information. Since major emergencies are rare events, knowledge of both technological (chemical or physical) and natural hazards can be broadened by consulting with fire departments, insurance companies, engineering consultants, and government departments.

10.3.4 The technological and natural hazards:

Areas where flammables, explosives, or chemicals are used or stored should be considered as the most likely place for a technological hazard emergency to occur. Examples of these hazards are:

- fire
- explosion
- building collapse
- major structural failure
- spills of flammable liquids

- accidental release of toxic substances
- deliberate release of hazardous biological agents, or toxic chemicals
- other terrorist activities
- exposure to ionizing radiation
- loss of electrical power
- loss of water supply
- loss of communications
- environment agencies

The list of risk from natural hazards would include:

- floods,
- earthquakes,
- tornados,
- other severe wind storms,
- snow or ice storms,
- severe extremes in temperature (cold or hot), and
- Pandemic diseases like influenza & etc.

The possibility of one event triggering others must be considered. An explosion may start a fire and cause structural failure while an earthquake might initiate all the events noted in the list of chemical and physical hazards.

10.3.5 The series of events or decisions that should be considered:

Having identified the hazards, the possible major impacts of each should be itemized, such as:

- sequential events (for example, fire after explosion)
- evacuation
- casualties
- damage to plant infrastructure
- loss of vital records/documents
- damage to equipment
- disruption of work

Based on these events, the required actions are determined. For example:

- declare emergency
- sound the alert
- evacuate danger zone
- close main shutoffs
- call for external aid
- initiate rescue operations
- attend to casualties
- fight fire

The final consideration is a list and the location of resources needed:

- medical supplies
- auxiliary communication equipment
- power generators
- respirators
- chemical and radiation detection equipment
- mobile equipment
- emergency protective clothing
- fire fighting equipment
- ambulance
- rescue equipment
- trained personnel

10.3.6 The key elements of the emergency plan:

The emergency plan includes

- all possible emergencies, consequences, required actions, written procedures, and the resources available
- detailed lists of personnel including their home telephone numbers, their duties and responsibilities
- floor plans, and
  Large scale maps showing evacuation routes and service conduits (such as gas and water lines).

Since a sizable document will likely result, the plan should provide staff members with written instructions about their particular emergency duties.

The following are examples of the parts of an emergency plan. These elements may not cover every situation in every workplace but serve they are provided as a general guideline when writing a workplace specific plan:

10.3.7 Objective

The objective is a brief summary of the purpose of the plan; that is, to reduce human injury and damage to property in an emergency. It also specifies those staff members who may put the plan into action. The objective identifies clearly who these staff members are since the normal chain of command cannot always be available on short notice. At least one of them must be on the site at all times when the premises are occupied. The extent of authority of these personnel must be clearly indicated.

10.3.8 Organization

One individual should be appointed and trained to act as Emergency Co-ordinator as well as a "back-up" co-ordinator. However, personnel on the site during an emergency are key in ensuring that prompt and efficient action is taken to minimize loss. In some cases it may be possible to recall off-duty employees to help but the critical initial decisions usually must be made immediately.

Specific duties, responsibilities, authority, and resources must be clearly defined. Among the responsibilities that must be assigned are:

- reporting the emergency
- activating the emergency plan
- assuming overall command
- establishing communication
- alerting staff
- ordering evacuation
- alerting external agencies
- confirming evacuation complete
- alerting outside population of possible risk
- requesting external aid
- coordinating activities of various groups
- advising relatives of casualties
- providing medical aid
- ensuring emergency shut offs are closed
- sounding the all-clear
- advising media

This list of responsibilities should be completed using the previously developed summary of countermeasures for each emergency situation. In organizations operating on reduced staff during some shifts, some personnel must assume extra responsibilities during emergencies. Sufficient alternates for each responsible position must be named to ensure that someone with authority is available onsite at all times.

External organizations that may be available to assist (with varying response times) include:

- fire departments
- mobile rescue squads
- ambulance services
- police departments
- telephone company
- hospitals
- utility companies

- industrial neighbours
- government agencies

These organizations should be contacted in the planning stages to discuss each of their roles during an emergency. Mutual aid with other industrial facilities in the area should be explored.

Pre-planned coordination is necessary to avoid conflicting responsibilities. For example, the police, fire department, ambulance service, rescue squad, company fire brigade, and the first aid team may be on the scene simultaneously. A pre-determined chain of command in such a situation is required to avoid organizational difficulties. Under certain circumstances, an outside agency may assume command.

Possible problems in communication have been mentioned in several contexts. Efforts should be made to seek alternate means of communication during an emergency, especially between key personnel such as overall commander, on-scene commander, engineering, fire brigade, medical, rescue, and outside agencies. Depending on the size of the organization and physical layout of the premises, it may be advisable to plan for an emergency control centre with alternate communication facilities. All personnel with alerting or reporting responsibilities must be provided with a current list of telephone numbers and addresses of those people they may have to contact.

10.3.9 Procedures

Many factors determine what procedures are needed in an emergency, such as

- the degree of emergency,
- the size of organization,
- the capabilities of the organization in an emergency situation,
- the immediacy of outside aid,
- the physical layout of the premises, and
- the number of structures determine procedures that are needed.

Common elements to be considered in all emergencies include pre-emergency preparation and provisions for alerting and evacuating staff, handling casualties, and for containing of the emergency.

Natural hazards, such as floods or severe storms, often provide prior warning. The plan should take advantage of such warnings with, for example, instructions on sand bagging, removal of equipment to needed locations, providing alternate sources of power, light or water, extra equipment, and relocation of personnel with special skills. Phased states of alert allow such measures to be initiated in an orderly manner.

The evacuation order is of greatest importance in alerting staff. To avoid confusion, only one type of signal should be used for the evacuation order. Commonly used for this purpose are sirens, fire bells, whistles, flashing lights, paging system announcements, or word-of-mouth in noisy environments. The all-clear signal is less important since time is not such an urgent concern.

The following are "musts":

- Identify evacuation routes, alternate means of escape make these known to all staff; keep the routes unobstructed.
- Specify safe locations for staff to gather for head counts to ensure that everyone has left the danger zone. Assign individuals to assist handicapped employees in emergencies.
- Carry out treatment of the injured and search for the missing simultaneously with efforts to contain the emergency.
  Provide alternate sources of medical aid when normal facilities may be in the danger zone.
  Containing the extent of the property loss should begin only when the safety of all staff and neighbours at risk has been clearly established.

10.4 Testing and Revision

Completing a comprehensive plan for handling emergencies is a major step toward preventing disasters. However, it is difficult to predict all of the problems that may happen unless the plan is tested. Exercises and drills may be conducted to practice all or critical portions (such as evacuation) of the plan. A thorough and immediate review after each exercise, drill, or after an actual emergency will point out areas that require improvement. Knowledge of individual responsibilities can be evaluated through paper tests or interviews.

The plan should be revised when shortcomings have become known, and should be reviewed at least annually. Changes in plant infrastructure, processes, materials used, and key personnel are occasions for updating the plan.

It should be stressed that provision must be made for the training of both individuals and teams, if they are expected to perform adequately in an emergency. An annual full-scale exercise will help in maintaining a high level of proficiency.

10.5 EMERGENCY EVACUATION PROCEDURE & RESCUE OPERATIONS

10.5.1 Evacuation

- Evacuation of persons from affected areas and non-essential workers from adjacent areas lowers the risk of casualties.
- Evacuation system testing and training.
- Control of access and exit points.

- Dead count requirements.

The Project Management and Supervisor's are responsible to familiarize with emergence evacuation procedure, which can be apply to Client areas where personnel are working.

Safety Officer shall prepare Emergency Evacuation Procedure in graphical from and posted in strategic locations within the building / site offices.
When emergency condition exists or upon hearing the **"Stop Work Alarm"** the supervisor shall ensure:

- That all work is immediately stopped and equipment is shut down. That all workers are
- immediately evacuated to the front of company's site office, to a designated evacuation area or any safe place.
- Personnel shall not be allowed to return to work until a notification has been received from Operations Department or from Client's representative.
- Discipline Supervisor (Civil, Mechanical & Electrical) in conjunction with the site foreman shall be responsible for head counting to ensure all personnel are present at the assembly area.
- In the event of emergency situation such as serious personal injury, fire or any associated critical situations, the nearest Clinic at site will be contacted for assistance and First-Aid medical attention-treatments will be given immediately to the injured workers without fail. When referring to the severe and critical cases for which requires special medical treatments with facilities, our company ambulance stationed at Site will then mobilized the casualties to a nearest Hospital in town for carrying out such treatments.
- The Safety Officer and Project Supervisor vehicle shall be equipped with Bravo Mobile where the nearest Office can be reach and ask to dial for emergency assistance.
- We will interface with Client's Representative in regards with emergency evacuation procedure by communicating at the time of the event thru oral report. This will be followed by detailed reports within 24 hours of the occurrence of the events.

10.5.2 Employee emergency plans & fire prevention plans:

10.5.2.1 Definitions:

1. Approved shall mean listed or approved equipment by nationally recognized testing agencies.

2. Emergency action plan. A plan for a workplace, or parts thereof, describing what procedures the employer and employees must take to ensure employee safety from fire or other emergencies.

3. Emergency escape route. The route that employees are directed to follow in the event they are required to evacuate the workplace or seek a designated refuge area.

10.5.2.2 Fire alarm signaling systems:

The employer shall assure that fire alarm signaling systems are maintained and tested in accordance with the construction requirements.

10.5.2.3 Employee emergency plans and fire prevention plans:

(1) Emergency action plan. (a) Scope and application. This subdivision applies to all

emergency action plans
required by a particular construction standard. The emergency action plan shall be in writing, and shall cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.
(b) Elements. The following elements, at a minimum, shall be included in the plan:

- Emergency escape procedures and emergency escape route assignments;
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;
- Procedures to account for all employees after emergency evacuation has been completed;
- Rescue and medical duties for those employees who are to perform them;
- The preferred means of reporting fires and other emergencies; and
- Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

(c) Alarm systems. You must establish an employee alarm system which complies with recognized standards. The employee alarm system must provide warning for necessary emergency action as called for in your emergency action plan. The employee alarm must be distinctive and recognizable as a signal to perform actions designed under the emergency action plan.

(d) Evacuation. The employer shall establish in the emergency action plan the types of evacuation to be used in emergency circumstances.
(e) Training.

- Before implementing the emergency action plan, the employer shall designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

- The employer shall review the plan with each employee covered by the plan at the following times:

(A) Initially when the plan is developed;

(B) Whenever the employee's responsibilities or designated actions under the plan change; and
(C) Whenever the plan is changed

- The employer shall review with each employee upon initial assignment those parts of the plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept at the workplace and made available for employee review.

(2) Fire prevention plan. (a) Scope and application. This subsection applies to all fire

prevention plans
required by a particular construction standard. The fire prevention plan shall be in writing.

(b) Elements. The following elements, at a minimum, shall be included in the fire prevention plan:
(i) A list of the major workplace fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems which can control a fire involving them;
(ii) Names or regular job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions or fires; and
(iii) Names or regular job titles of those personnel responsible for control of fuel source hazards.
(c) Housekeeping. The employer shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.
(d) Training.

(i) The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.

(ii) The employer shall review with each employee upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept in the workplace and made available for employee review.

(e) Maintenance. The employer shall regularly and properly maintain, according to established procedures, equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.

10.5.2.4 Appendix:

This appendix serves as a non mandatory guideline to assist all companies in complying with the appropriate requirements.

(1) Employee emergency plans. Emergency action plan elements. The emergency action plan should address emergencies that the employer may reasonably expect in the workplace. Examples are: Fire, toxic chemical releases; floods; and others. The elements of the emergency action plan presented in above can be supplemented by the following to more effectively achieve employee safety and health in an emergency. The employer should list in detail the procedures to be taken by those employees who have been selected to remain behind to care for essential construction operations until their evacuations become absolutely necessary. Essential construction operations may include the monitoring of plant power supplies, water supplies, and other essential services which cannot be shut down for every emergency alarm. Essential construction operations may also include chemical or manufacturing processes which must be shut down in stages or steps where certain employees must be present to assure that safe shut down procedures are completed.

The use of floor plans or workplace maps which clearly show the emergency escape routes should be included in the emergency action plan. Color coding will aid employees in determining their route assignments.

As an employer, we should also develop and explain in detail what rescue and medical first aid duties are to be performed and by whom. All employees are to be told what actions they are to take in these emergency situations that the employer anticipates may occur in the workplace.

(2) Emergency evacuation. At the time of an emergency, employees should know what type of evacuation is necessary and what their role is in carrying out the plan. In some cases where the emergency is very grave, total and immediate evacuation of all employees is necessary. In other emergencies, a partial evacuation of nonessential employees with a delayed evacuation of others may

be necessary for continued construction operation. In some cases, only those employees in the immediate area of the fire may be expected to evacuate or move to a safe area such as when a local application fire suppression system discharge employee alarm is sounded. Employees must be sure that they know what is expected of them in all such emergency possibilities which have been planned in order to provide assurance of their safety from fire or other emergency.

(3) Emergency action plan training. We should assure that an adequate number of employees are available at all times during working hours to act as evacuation wardens so that employees can be swiftly moved from the danger location to the safe areas. Generally, one warden for each twenty employees in the workplace should be able to provide adequate guidance and instruction at the time of a fire emergency. The employees selected or who volunteer to serve as wardens should be trained in the complete workplace layout and the various alternative escape routes from the workplace. All wardens and fellow employees should be made aware of handicapped employees who may need extra assistance, such as using the buddy system, and of hazardous areas to be avoided during emergencies. Before leaving, wardens should check rooms and other enclosed spaces in the workplace for employees who may be trapped or otherwise unable to evacuate the area.

After the degree of is completed, the wardens should be able to account for or otherwise verify that all employees are in the safe areas.

(4) Fire prevention housekeeping. The standard calls for the control of accumulations of flammable and combustible waste materials.

It is the intent of this standard desired evacuation to assure that hazardous accumulations of combustible waste materials are controlled so that a fast developing fire, rapid spread of toxic smoke, or an explosion will not occur. This does not necessarily mean that each room has to be swept each day. Employers and employees should be aware of the hazardous properties of materials in their workplaces, and the degree of hazard each poses. Certainly, oil soaked rags have to be treated differently than general paper trash in office areas. However, large accumulations of waste paper or corrugated boxes, etc., can pose a significant fire hazard. Accumulations of materials which can cause large fires or generate dense smoke that are easily ignited or may start from spontaneous combustion are the types of materials with which this standard is concerned. Such combustible materials may be easily ignited by matches, welder's sparks, cigarettes, and similar low level energy ignition sources.

(5) Maintenance of equipment under the fire prevention plan. Certain equipment is often installed in workplaces to control heat sources or to detect fuel leaks. An example is a temperature limit switch often found on deep-fat food fryers found in restaurants. There may be similar switches for high temperature dip tanks, or flame failure and flashback arrester devices on furnaces and similar heat

producing equipment. If these devices are not properly maintained or if they become inoperative, a definite fire hazard exists. Again employees and supervisors should be aware of the specific type of control devices on equipment involved with combustible materials in the workplace and should make sure, through periodic inspection or testing, that these controls are operable. Manufacturers' recommendations should be followed to assure proper maintenance procedures.

11.0 INJURY & REHABILITATION PLAN

11.1 Injury and Illness Prevention Program (IIPP)

11.1.1 Purpose:

It is the policy of the Company to maintain a safe and healthful work environment for each employee and to comply with all applicable occupational health and safety regulations. The Company's Injury and Illness Prevention Program (IIPP) is intended to establish a framework for identifying and correcting workplace hazards within the Company, while addressing legal requirements for a formal, written IIPP.

11.1.2 Responsibilities:

The Safety and Health Manager has primary authority and responsibility to ensure Company implementation of the IIPP and to ensure the health and safety of the Company's employees. This is accomplished by communicating the Company's emphasis on health and safety, analyzing work procedures for hazard identification and correction, ensuring regular workplace inspections, providing health and safety training, and encouraging prompt employee reporting of health and safety concerns without fear of reprisal.

11.1.3 The Safety and Health Manager has responsibility for:

- Ensuring that the Safety Committee is aware of all accidents which have occurred, and all hazards which have been observed since the last meeting
- Working with the Safety Committee and management to address facility-related safety concerns
- Assisting in the coordination of required health and safety training

- Maintaining copies of Safety Committee minutes and other safety-related records

The Safety and Health Manager may seek assistance from any member of the Company as necessary to meet these responsibilities.

The Safety Committee has the ongoing responsibility to maintain and update this IIPP, to assess Company compliance with applicable regulations and policies, to evaluate reports of unsafe conditions, and to coordinate any necessary corrective actions. The Safety Committee meets at least quarterly and will be composed of rank and file employees. Each employee has a designated representative on the committee.
Timely correction of workplace hazards will be tracked by the Safety Committee which will receive and review reports of unsafe conditions, workplace inspection reports, and injury reports. Specifically, the Safety Committee will:

- Review the results of periodic, scheduled workplace inspections to identify any needed safety procedures or programs and to track specific corrective actions
- Review supervisors' investigations of accidents and injuries to ensure that all causes have been identified and corrected
- Where appropriate, submit suggestions to department management for the prevention of future incidents
- Review alleged hazardous conditions brought to the attention of any committee member, determine necessary corrective actions, and assign responsible parties and correction deadlines
- When determined necessary by the Committee, the Committee may conduct its own investigation of accidents and/or alleged hazards to assist in establishing corrective actions
- Submit recommendations to assist department management in the evaluation of employee safety suggestions

The Safety Committee can seek assistance in the remediation of a hazard from any source it deems necessary and prudent.

11.1.4 Injury and Damage Reporting:

We shall ensure that an immediate oral report is made to Client Representative in the case of all:

- Fatal injuries;

- Injuries requiring medical attention which result in lost time;
- Damage over SR10,000 to KHALID KHAZAL's plant or equipment;
- Damage, in any amount, to Client equipment or property;
- Fire;
- Damage and near misses to cranes and heavy equipment.

For accidents involving our employee fatalities, serious injury to five or more KHAZAL employees, or damage to Client equipment or property, a written report shall be submitted promptly to Client Representative. In addition, Client may convene an engineering review or investigation committee in accordance with its requirements.

We shall maintain, in a format approved by Client Representative, a current record showing all:

- WORK injuries;
- Fires;
- Incidents of property damage over SR10,000;
- Motor vehicle collisions;
- Incidents involving damage to Client equipment and property;
- Damage and near misses to crane and heavy equipment.

This record shall be available for inspection at all reasonable times and shall be submitted to Client on request.

11.1.5 Rehabilitation procedures for injured workers:

Physical health care is therefore both valid and necessary for all employees contracted with our company. The workable healing methods that improve and strengthen injured individuals restoring them back to their original personal strength, ability, competence, confidence, stability, responsibility and spiritual well-being. It is important to implement the rightful ways to improve their self confidence and encouraging them that they are still having an occupation/career with our organization.

This outlines all humanitarian approaches and extends offered by our company up to its extent in reassigning or reappointing the injured workers back to duties whatever appropriately suiting to them by giving priority concern to their health conditions. Before implementation of such arrangements, the matter therefore will be consulted in detail with the treating medical expertises to adopt a clearer understanding about their medical findings. Then offering jobs to the injured employees best suiting and meeting their conveniences to manage without difficulties. The management committee will decide the working hours as per the instructions of the nominated respective Doctors.

Each and every necessity steps required to be considered in this management and shall be carried-out in order to improve the human welfare standards of injured employees and to be treated with respect.

12.0 FIRST-AID FACILITIES

We shall provide and maintain first-aid facilities at the Work Site throughout the duration of contract. When we employ 50 or more workmen at a Work Site, we shall provide a qualified nurse and a dedicated emergency vehicle (ambulance), properly supplied and marked, to transport injured personnel to the nearest health care facility. The Company provides a First Aid Kit on the premises. It is there for employee's use in the treatment of minor scratches, burns, headaches, nausea, etc. All employees shall know the location of the First Aid Kit and shall notify their supervisor if they need to use the First Aid Kit.

If an employee has a work related injury or illnesses that requires professional medical assistance, they shall notify their supervisor and let him know before they receive this assistance. If they fail to notify their supervisor, they may be ineligible for Worker's Compensation, benefits to pay for doctor's bills, and/or lost wages.

_____ has a valid certificate in first aid training, and shall
(Name of Person) be contacted to render first aid, as necessary.

The Safety and Health Manager shall inspect First Aid Kits before the kits are sent out to each job, and on a weekly basis to insure that they are filled and complete.
Note: Ratio 1:50 one safety officer for every fifty workers.

12.1 First Aid Procedures and instructions

In all cases requiring emergency medical treatment, immediately call, or have a co-worker call, to request emergency medical assistance.

14.1.1 Minor First Aid Treatment

First aid kits are stored in the FIRST AID BOX. If an employee sustains an injury or are involved in an accident requiring minor first aid treatment, they shall:

· Inform their supervisor.

· Administer first aid treatment to the injury or wound.

· If a first aid kit is used, indicate usage on the accident investigation report.

· Access to a first aid kit is not intended to be a substitute for medical attention.

· Provide details for the completion of the accident investigation report.

12.2 Non-Emergency Medical Treatment

For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If an employee sustains an injury requiring treatment other than first aid, they shall:

· Inform their supervisor. · Proceed to the posted medical facility. Their supervisor will assist with transportation, if necessary.

· Provide details for the completion of the accident investigation report.

· A designated first-aid treatment room equipped with portable bed and stretch chair shall be provided on site.

12.3 Emergency Medical Treatment

If an employee sustains a severe injury requiring emergency treatment:

· Call for help and seek assistance from a co-worker.

· Use the emergency telephone numbers and instructions posted next to the telephone in your work area to request assistance and transportation to the local hospital emergency room.

· Provide details for the completion of the accident investigation report.

12.4 First Aid Training

Each employee will receive training and instructions from his supervisor on the Company first aid operational procedures.

12.5 Respiratory Protection Program

12.5.1 Policy:

All employees will be protected from exposure to airborne radioactive, chemical, or biological contamination by installing, implementing, or instituting feasible engineering or administrative controls. If these controls do not prove feasible, or while they are being installed/instituted, appropriate respiratory protection will be provided. For some experiments, respiratory protection may be provided as an additional safeguard against exposure.

It is the Company's policy to provide employees with a safe and healthful working environment. This is accomplished by utilizing facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, protection shall be used to ensure personnel protection.

This program does not apply to contractors as they are responsible for providing their own respiratory protection programs and respiratory protective equipment.

12.5.2 Definitions:

a. Respirator - A device provided to protect the wearer from inhalation of harmful or nuisance atmospheres. Respirators may function by air purifying and/or air supplying techniques.

b. Air Purifying Respirator - A respirator that filters and/or absorbs contaminants from the ambient air being inhaled by the wearer.

c. Supplied Air Respirator - A respirator in which clean air is supplied to the face from an auxiliary source away from the wearer.

d. Self-Contained Breathing Apparatus - A respirator in which the air supply is carried by the wearer.

e. Atmospheric Contamination - The term applies equally to gases such as nitrogen, carbon monoxide, and carbon dioxide; the vapours of volatile substances such as benzene and carbon tetrachloride; toxic dusts and fumes; radioactive materials; and so forth.

f. Respirator Fit Test - A test used to determine a proper match or fit between the face piece of the respirator and face of the wearer.

12.6 Responsibilities:

a. Supervisor

Supervisors will ensure each employee under his supervision using a respirator has received appropriate training in its use and an annual medical evaluation. Supervisors will ensure the availability of appropriate respirators and accessories, provide adequate storage facilities, and encourage proper respirator equipment maintenance. Supervisors must be aware of tasks requiring the use of respiratory protection, and ensure all employees engaged in such work use the appropriate respirators at all times. The Supervisors are responsible for the following:

1. Ensures that all employees who wear respiratory protective devices are thoroughly trained in their use.

2. Provides employees with the respiratory protection appropriate for the operation, and ensures the use of such devices.

3. Identifies potentially hazardous conditions and immediately notifies the Safety and Health Manager for corrective action.

BEWARE OF EXTREME HEAT (HEAT RELATED ILLNESSES)		
THEY CAN OCCUR SEPARATELY, BUT MORE OFTEN, IN COMBINATION		
HEAT CRAMPS Heat cramps strike	HEAT EXHAUSTION	HEAT STROKE
those who sweet profusely and fail to replace lost salt SYMPTOMS Painful muscle spasms in arms, legs, abdomen and other muscles used when working	Heat exhaustion develops when the body loses more fluid through sweating them it's taking in. SYMPTOMS Profuse sweating and lose of body strength Possible vomiting and/or fainting Moist, pale skin and pale complexion, Body temperature remain normal or below normal.	Heat stroke occurs when your body's heat regulating system break down under stress &sweating stop. Often little warning and may be life threatening. If the victim does not receive quick treatment death can occur. SYMPTOMS Red spotted skin, Body temperature that reaches 105 F/41 C confusion, convulsion, delirium, and loss of consciousness.
TREATMENT: Press firmly with your hands on the cramped muscles or gently massage to relieve the spasm. If victim has no other medical condition, give to victim half a glass of salt water (one teaspoon of salt per glass of water) every 15 minutes for about an hour. A doctor should see victim having other medical condition.	TREATMENT: Have the person sip water for about an hour while lying down. Loosen tight clothing and raise the victim feet 8 to 12 inches. And fan the victim. If vomiting occurs, discontinue fluids and take the person to a hospital. Observe for vital signs and keep the patient warm under the shade.	TREATMENT: Move the victim out of the sun to a cool place. Call for medical assistance immediately. Thoroughly soak the person's clothing with cold water (do not add ice). after victim's temperature drops, dry him or her off. If body temperature rises again repeat the cooling process.
PREVENTING HEAT- RELATED ILLNESSES		
1	Keep an adequate supply of water with you and drink a minimum of 8 ounce every 20 to 30 minutes. DON'T WAIT UNTIL YOU'RE THIRSTY - Dehydration is a major factor in heat stress.	

2	Try to avoid carbonated drinks with caffeine.
3	Eat well balanced meals, BUT KEEP THEM LIGHT. Be careful about salt consumption, salt lost through perspiration, avoid salt supplements unless recommended by your doctor.
4	Wear lightweight, light- colored, loose fitting clothing, made of natural fabrics-like cotton, which breath, cover as much as possible.
5	During extremely hot condition reduce your workload and then increase it gradually to full capacity.
6	Attempt to avoid exposure to direct sun between the hours of 12 am, to 3 pm, the affect of sunlight reflected off the sand, concrete.
7	Use fans, ventilators, or exhaust system and heat shields, if available.

13.0 FIRE SAFETY PLAN

13.1 **Purpose:**

The purpose of the Fire Safety Plan is to prevent potential injuries and deaths, and to protect the Client/Company's property from damage or loss due to fire. This plan includes fire prevention, building exits, fire extinguishing, emergency evacuation, and employee training.

This plan will be reviewed with all new employees when they begin their job and with all employees when the plan is changed.

13.2 **Fire Prevention:**

Our first line of defense against fire is to prevent it in the first place. It is the responsibility of all employees to prevent fires. All employees will be apprised of the potential fire hazards in their work area and will be trained in safe work procedures and practices. Employees are expected to follow proper procedures to prevent fires and to notify their supervisor or other management personnel if they observe any condition that could lead to the ignition of a fire or could increase the spread of a fire.
The following are some general fire prevention practices and procedures that will be followed:

- All ignition sources (i.e., open flames, cutting torches, spark producing equipment, electric motors, heating equipment, etc.) will be controlled. All contact of ignition sources with combustible and flammable materials will be avoided. All employees will keep all combustible materials at least five feet from such ignition sources and all flammable liquids at least twenty feet away.
- Extensive use of electrical extension cords should be avoided. Any damaged or frayed electrical wiring, equipment cords, extension cords, etc. will be removed from service immediately and replaced or repaired.

- Any use of flammable liquids will be done in a manner that prevents spills, and prevents the flammable liquid or its vapour or spray from coming into contact with any ignition source. All flammable liquids will be stored in proper flammable liquid storage containers and kept in the proper storage cabinets.

- Housekeeping and storage practices are critical to preventing fires. Any combustible materials will be stored in neat stacks with adequate aisle space provided to prevent the easy spread of fire and to allow for access to extinguish any fire that may start. Trash, scrap, and other unnecessary combustibles must be cleaned up immediately and placed in proper disposal containers.

- Smoking is restricted to designated areas.

13.3 Company Fire Exits:

- Each area of the building/work site has at least two means of escape and are to be used in a fire emergency. The location of exits and the path of egress (escape) will be shown on maps (and posted throughout the building as necessary).
- Fire exit doors shall not be blocked or locked during business hours in order to prevent their emergency use (when employees are within the building).
- Exit routes from the work site will be clear and free of obstructions. All exits are marked with signs designating exits from the premises.

14.0 Electrical Safety

14.1 Purpose

To provide interpretive guidelines to ensure uniform enforcement of the standard for Electrical Related Work Practices.
These guidelines detail the necessary precautions that should be taken by all personnel to minimize their exposure to electrical sources of energy. Aimed at workers that perform electrical as well as non-electrical maintenance tasks, they emphasize conditions that should be avoided in the workplace.

14.2 QUALIFIED PERSONNEL

Electrical repair work or diagnostic work on electrical equipment shall only be performed by personnel that are qualified to perform this task. Qualified personnel must be documented as being qualified by appropriate Company management.

Instruction manuals from manufacturer detail what work can be performed by specific individuals. Consult the manuals for instruction. If in doubt, seek additional help.

Equipment that warn "DO NOT REMOVE COVERS" (PC's, typewriters, fans, pencil sharpeners, etc.) should be repaired by those qualified to perform such repairs only.

Personnel should recognize that some equipment, even when unplugged, could still cause an electrical shock if unauthorized access panels are removed during servicing.

14.3 OFFICE AND NON-ELECTRICAL MAINTENANCE PERSONNEL SAFETY REQUIREMENTS

While the office environment is usually considered very benign, the potential for injury from electrical energy does exist. More people receive electrical shocks from low voltage; 120 volt rated equipment than higher voltage rated equipment. Outlined below are requirements that shall be followed in an office environment by apply equally as well at home or other work environments.

Never handle electrical equipment or their extension cords when hands are wet or if the floor surface is wet. Special equipment is required to work in wet environments and to handle equipment while tools or the body is in a wet location.

Always unplug equipment when performing maintenance. Equipment should be unplugged by grasping the entire plug itself and not by pulling on the cord. This applies to disconnecting a portable drill, changing a bit to disconnecting a portable saw to replace a blade.

Never use electrical equipment that has defective plugs or wiring. Cords that are frayed or have insulation tears, cracks, breaks, or abrasions shall not be used. Any repairs made to such defective-equipment shall be done by qualified electricians. Three prong plugs shall be inspected from proper orientation of the plug prior to inserting it into a receptacle.

During the initial installation of any equipment, the electrical cord shall be visually inspected for defects. In addition, anytime the cord is moved from one location in that office to another location in that same office or other locations, it shall be visually inspected again. It is the user's responsibility to visually inspect the equipment or extension cords.

14.4 Extension Cords

Be aware that all locations adhere to an "Assured Grounding This stipulates that portable tools, portable equipment and extension cords/cord sets be tagged/coded to indicate when they require retesting. The user of such equipment and tools is responsible for ensuring that the inspection dates are valid. If in doubt, seek assistance.

While the use of extension cords in offices is discouraged, cords less than ten feet that are permanently left in one location are not required to be part of an equipment.

Extension cords in one office shall not be used to supply power to another office, building or adjacent offices. Cords may not be run through doors, windows or ceilings.

Extension cords used to supply power to office equipment or to facilitate connections to multiple outlet power strips shall not exceed ten feet in length. Regardless of length, these cords shall be left in one stationary location and not moved from location to location. Any extension cord greater than ten feet must be tested or used in conjunction with a GFCI. The user of extension cords exceeding ten feet is responsible for complying with the equipment grounding requirements.

Extension cords as well as equipment cords shall not be modified to fit a receptacle. Specifically, ground prongs on cords shall not be modified, removed or fitted with adapters.

Extension cords shall not be overloaded. Care shall be taken to insure that the cord has sufficient capacity to carry the electrical load. Indications of overloads are breakers tripping, receptacles that are warm to the touch, extension cords that are warm or the smell of electrical insulation burning.

Extension cords that are frayed or have insulation tears, cracks or abrasions or with bent, broken or "spread" prongs shall not be utilized. Defective prongs can be a source of shock or electrical fires.

14.5 Grounding

With the exception of UL listed "Double Insulated" equipment, all equipment shall have an equipment grounding conductor that connects the frame of the device being utilized (overhead projector, typewriter, fan, heater, etc.) to the electrical system grounding conductor.

The equipment ground is required to protect personnel. Equipment shall be grounded or utilize a double insulated system. Ungrounded equipment and tools represent a hazard to personnel.

Two prong plugs provided with double insulated equipment shall be installed with the correct plug orientation (polarity).

Two wire extension cords shall not be used.

14.6 PLUGS AND RECEPTACLES

Equipment shall not be unplugged while that equipment switch is turned on or plugged into receptacles with equipment's switch turned on.

Special circuits protected by Ground Fault Circuit Interrupters (GFCI) are used to provide added measures of protection to personnel. They are easily identified by a "push to test" button and a "reset" button and are labeled "GFCI". Any equipment that causes these receptacles to trip or deactivate the circuit shall not be utilized unless inspected by an electrician. Do not attempt to use such equipment on non-GFCI receptacles. Using a device that trips a GFCI on a non-GFCI circuit can result in receiving an electrical shock or death!

14.7 ELECTRICAL REQUIREMENTS

All temporary electrical equipment on the project site must be listed approved by an internationally recognized testing laboratory for the site application. All temporary electrical installations must conform to recognized codes.
Portable electrical hand tools must be grounded or double insulated. All electrical cords and cables are covered or elevated to protect them from damage and to eliminate tripping hazards.

NOTE: When cables are elevated they must be secured into position and protected from abrasion when strung over metal beams, etc. The use of rebar tie-wire (16 ga.) to secure cables is prohibited.

Power saws, grinders, and other power tools must have proper guards in place at all times.

Temporary portable lighting used in damp and/or hazardous locations and confined areas with low ground resistance must be operated at a maximum of 12 volts, unless protected with GFCIs.

Qualified electricians are the only employees authorized to repair electrical equipment. Field repairs or tampering with any electrical equipment by unauthorized persons is not tolerated.

No work should be performed hot regardless of voltage. When it becomes necessary to work on energized lines or equipment, the task is reviewed and approved by the Company's electrical supervisor. When working authorized hot jobs, approved rubber electrical gloves, blankets, mats and other protective equipment must be used.

Temporary lighting must have guards over bulbs.

Distribution panels must be dead front type, covering hot terminals and properly constructed and grounded.

High voltage (600 volts or more) must be properly protected and identified using approved signs

Cord sets must have heavy-duty insulation, weather and sun resistant with a ground conductor, and be free of splices.

All electrical equipment is to be visually checked by the user daily or before each use. All electrical equipment is formally inspected by a qualified electrician at least every 90 days or more often based on conditions found during inspections. Such inspections include a continuity test of the grounding conductor (as applicable) and complete examination of the equipment/system to assure good and safe operating condition. No electrical equipment is used unless it is in proper operating order. Records are maintained by the Company and equipment individually identified.

Ground fault circuit protection must be used on all electrical systems, 120 volts receptacle outlets, extension cords and equipment connected by electrical cords and plugs. Distribution panels supplied at the site incorporate GFCI's for 120-volt usage.
All circuit breakers/GFCI shall be positively identified as to which outlets they protect by numbering each breaker and its corresponding outlet.

When performing maintenance on temporary electrical systems, lockouts and tag outs must be used. Under no circumstances shall owner's electrical equipment be entered to perform adjustments, modifications, etc. without the prior expressed written permission of the Operations Department. All authorized work will be subject to inspection at any time.

During testing and commissioning processes of permanent plant equipment, the lockout and tag out program established by the Company and owner must be complied with and under the control of the Safety Department.

14.7 Lockout procedures

Electrical Supervisor shall keep and maintain a master lock-out box. All locks will have one key. Only one key will be issued to the employee engaged in lockout. A log book shall be kept indicating the person assigned to the location of the locks and the date issued.

Electrical Supervisor shall issue to the Electrical foreman of a substation, a field lock-out box, multiple locks holders, locks, tags and field log book.

Lock-out boxes shall be kept locked at all times, all substations shall have a lock box. For temporary power.

Craftsmen requiring a tag and lock-out lock shall contact the Electrical Supervisor. Electrical Supervisor or designee shall issue the lock-out tag and lock to the craftsman. The craftsman shall fit out the electrical lock-out tag completely, including the system, circuit or equipment number and return the key tag. The full name and all information shall be ink (no initials).

Tags are required to be attached by hand and of strength equivalent to a non-releasable, self-locking cable tie. Tags shall have legends that warn against hazardous conditions (do not start, do not energize, do not operate).

Electrical Supervisor or designee shall enter the request into the log book, check the drawings for the location. electrical Supervisor or designee may place his isolation devices on the energy sources required to de-energize the machine or equipment. Upon completion of the de-energizing and lock/tag, electrical supervisor or designee will place his keys in the lock box and complete lockout/tag permit, each requesting individual to perform servicing or maintenance on the isolated machine or equipment will place his personal lockout/tag out device on the lock box and then sign and date of permit.

Electrical Supervisor or designee and the requesting individual shall try to start the equipment to verify that the circuit is de-energized. When all testing is complete and the system is safe, the key shall be given to the craftsman. This key will remain in the possession of the person that signed the tag. The key is not transferable.

When the person that signed the tag completes the work, he shall remove and return the tag, lock and key to the supervisor or designee that issued the tag. The entry shall be cleared in the log book and the tag destroyed. The authorized electrical Supervisor or designee who isolated the machine will proceed to remove the isolation device.

14.8 Lockout/tag out Removal

1. Before lockout/tagout devices are removed and the energy is restored, the requesting individual perform the following.

a) Inspect the work area to assure that tools and equipment have been removed
b) Ensure that the machine or equipment components are operationally intact.
c) Ensure that all employees are safely positioned or removed from the area.
d) Notify affected employees that the isolation devices have been removed.

Note:

When the requesting individual perform the work who installed the device is unavailable to remove it, the device may be removed under the supervision of the Fluor supervisor in-charge on the job.

14.9 grounding jumpers

Prior to installing grounding jumpers, an additional "Danger Do Not Operate" tag shall be placed on the power source. The tag shall be marked "grounding jumpers on circuit, date, time and location of the jumpers". An identical tag shall be placed on the grounding jumpers.

The signatures of the Electrical Supervisors and the craftsman performing the work shall be required on the tags.

Both Electrical Supervisor and Electrical Craftsman shall be present during the installation / testing and removal of the tags and jumpers.

FD will provide a tracking log sheet for all jumpers and to be submitted to Fluor for approval.

15.0 Excavation and Shoring

Accidents due to cave-in can occur for excavations which are not shored or otherwise supported. Even rock that looks solid from a cursory inspection can collapse without warning.

The sides of an excavation may need to be suitably shored, benched or sloped back to a safe angle of repose, depth, and soil composition.

Other types of excavation accidents are caused by contact with underground pipes and cables, by falls of equipment and persons, by persons being struck by excavating equipment, and by hazardous atmospheres.

15.1 Before Work Starts

In order to begin excavation work with minimum risk to men, plant and equipment and to enable the work to proceed without interruption, the following factors will be considered well before the job starts:

a. Size and purpose of the excavation.
b. Nature of the ground including the proximity of made-up ground.
c. Stability of adjacent structures.
d. Position of underground obstructions such as pipes, electric cables, and other utilities.
e. Weather and soil moisture conditions, especially high water table.
f. Sources of soil vibrations (highway traffic, railroads, machinery, etc).
g. Adjacent roads and footpaths.
h. Method of excavation.
i. Excavation plan submitted to Loss Prevention.

Consideration of these factors will indicate the safety measures which will be implemented to proceed with the job and whether the sides of the excavation can be sloped and benched to a safe angle or whether other protective systems will be required. It is important to provide adequate and suitable protective systems for use whenever excavation work is to be carried out to a depth of 1.5 meters or more. Excavation work to a depth of less than 1.5 meters may also require protective systems

15.2 Work Permit

Work permits will be obtained from the appropriate operations supervisor before excavation work is started in any FD facility, including residential areas and roadways, and in any place where the presence of underground/utility obstructions is known or suspected. Outside of clearly defined responsibility areas, work permits will be obtained from the Superintendent, Utilities and the Communications Foreman, Oil and Gas Dispatch Unit or their delegated representatives. A Confined Space Entry Work Permit is a second work permit and is required for trenches deeper than 1.2 meters

All protective shoring systems and configurations, such as timber shoring, hydraulic and pneumatic systems, sloping, benching, shielding, sheet piling and freezing will be designed in accordance with. Loss Prevention requirements. Excavation plans will be submitted to Loss Prevention before work start-up.

15.3 Underground Obstructions

Whenever the presence of underground pipes, cables, vessels, or structures is known or suspected, mechanical excavators will not be used until all such obstructions have been exposed by hand digging. Mechanical excavators will not be used within 3 meters of any such obstruction. Pneumatic breakers will only be used where necessary to break concrete or other hard surfaces.

15.4 General Precautions

1. Shoring Protective Systems

As soon as an excavation reaches a depth of 1.2 meters or soil banks are greater than 1.5 meters suitable shoring will be installed or the sides sloped back to a safe angle. Shoring may be of timber or any other suitable material, such as steel sheet piling.

The determination of the angle of slopes, benches, or the choice and design of other protective systems will be based on evaluation of pertinent factors such as: type of soil (Type A, B, or C), depth of cut; possible variations in water content of the material while the excavation is open; anticipated changes in materials from exposure to air, sun, or water; loading imposed by structures, equipment, overlying material, or stored material; and vibrations from equipment, blasting, traffic, or other sources.

Excavations will not be sloped at an angle greater than one and one-half horizontal to one vertical (340 measured from the horizontal). Plans for sloping and benching systems will be sent to Loss Prevention for review.

Shoring systems will be designed by a qualified person and meet accepted engineering requirements. Materials used will be in good serviceable condition, and timbers will be sound, free from large or loose knots, and of proper dimensions.

2. Personnel Protection

Portable trench boxes or sliding trench shields may be used for the protection of personnel in lieu of a shoring system or sloping. Where such trench boxes are used, the design will be approved by FD Consulting Services Department.

Trench boxes will be designed, constructed and maintained to provide protection equal to or greater than the sheeting or shoring required.

Shields will be installed in a manner to restrict lateral or other movement of the shield and be capable of withstanding any sudden application of lateral loads.

Shields will be extended above the excavation to protect employees working inside the shields and when entering or exiting the areas protected by shields.

3. Inspection

All parts of an excavation, including the shoring, will be inspected every day by a competent person to ensure that there is no danger of collapse and all observations will be noted in the site safety log book.

4. Clearance

In order to provide a safe footing at the edge, and to prevent spoil falling into an excavation, a clear space at least 0.6 meter wide will be maintained on all sides.

5. Mechanical Excavator

Men will not be permitted to work underneath loads or in places where they could be struck by any part of a mechanical excavator.

6. Walkways

Where employees, equipment, or members of the public are required or permitted to cross over an excavation, a close planked bridge or walkway with standard guard rails will be provided and kept clear of excavated materials or other tripping hazards. No sidewalk will be undermined unless properly shored.

15.5 Access and Egress

Safe means of getting into and out of an excavation will be provided at intervals not exceeding 7.5 meters. Ladders will conform to the requirements set out or be placed at an angle of 75o, and extend at least 0.9 meter above the stepping-off point. Ladders will be securely fixed.

15.6 Hazardous Atmospheres and Materials

1. Ventilation

Where there is reason to suspect oxygen deficiency or the presence of a hazardous atmosphere in an excavation, gas tests will be carried out by a qualified person. Where necessary, mechanical ventilation will be used, or other appropriate precautions will be taken before men enter.

Note: Toxic, oxygen and flammable gas tests are to be conducted before entering hazardous excavations in Restricted Areas. .

2. Hazardous Atmospheres

Prior to entry into excavations greater than four feet deep, or confined spaces, a work permit will be issued. Gas tests will verify that the oxygen level is 20-21%, combustible gases 0.0 LEL, and H2S is 0 ppm. For elevated levels of gases tested follow requirements of Corrective measures may include use of air movers, identification and isolation of sources from fuel lines, sewers, open tanks or other measures to return the breathing atmosphere to normal readings. Subsequent testing is required to monitor the area during the work so appropriate precautions can be taken as necessary.

2.1 Precautions will be taken to prevent employee exposure to an atmosphere containing a concentration of any flammable gas above its lower explosive limit (LEL).

2.2 For an atmosphere with a concentration of any flammable gas below its lower explosive limit (LEL),

a) Above 0.0 LEL - No hot work permitted

b) 0.05 LEL to 0.5 LEL - Breathing apparatus will be used

c) Above 0.5 LEL - No entry permitted

d) When controls are used that is intended to reduce the level of atmospheric contaminants to acceptable levels, testing will be conducted as often as necessary to ensure that the atmosphere remains safe.

3. Emergency Rescue Equipment

1. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, will be readily available where hazardous

atmospheric conditions exist or may develop during work in an excavation. This equipment will be attended by a standby man outside the trench when in use.

2. Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, will wear a harness with a lifeline attached to it. The lifeline will be separate from any line used to handle materials, and will be individually attended at all times while the employee wearing the lifeline is in the excavation. Mechanical devices will be available to lift incapacitated employees from excavations.

4. Exhaust Gases

Where an internal combustion engine is used in an excavation, special precautions will be taken to ensure that exhaust gases are discharged so as not to be a hazard to men working in the excavation.

5. Organic Lead

Where the presence of buried organic lead, sludge, asbestos or any other hazardous chemical is known or suspected, whether in a Restricted Area or not, excavation work will not be started (or continued) until the Industrial Hygiene Service and Loss Prevention Departments have identified the hazard and specified the precautions to be taken and a new work permit has been issued.

15.7 Edge Protection, Markers and Fixed Lighting

Whenever it is necessary to place or operate power shovels, derricks, trucks, materials, soil banks or other heavy objects on a level above and near an excavation, the side of the excavation will be sheet-piled, shored, and braced as necessary to resist the extra pressure due to such superimposed loads. When mobile equipment is utilized or allowed adjacent to excavations, substantial stop logs or barricades will be installed. If possible, the grade should be away from the excavation. If men or vehicles are in the vicinity after dark, fixed warning lights will be used to mark the limits of the work.

15.8 Roads, Streets, and Sidewalks

Excavation work in roads, streets, and sidewalks will not be undertaken without the prior approval of the relevant authorities. Excavation work on public highways will have to be cleared in advance with Government Affairs and any special measures that they might specify will be implemented.

15.9 Backfilling

Backfilling and removal of trench supports will be accomplished first by backfilling up to a level allowing for the removal of the lower braces. Another layer of backfill will be positioned in the trench to the next layer of braces to be removed. Removal of trench

supports will progress together with the backfill from the bottom of the trench. In unstable soil, ropes will be used to pull out the jacks or braces from above after employees have cleared the trench. All excavations will be backfilled and consolidated, and the surface will be left in good condition as soon as is practicable.

16.0 Working at Height

Falls from height continue to be the biggest killer on construction sites. The following document provides advice for users of ladders and access scaffolds. It will also help those who select and specify equipment.

Work at height should be carried out from a platform with suitable edge protection.
Occasionally this may not be possible and a ladder may have to be used. However, ladders are best used as a means of getting to a workplace. They should only be used as a workplace for light work of extremely short duration.

16.1 Selecting equipment

When deciding what equipment to use think about what the job actually includes:

How long it will last and
Where it needs to be done.

The actual height
Access to the area of work
Other influencing factors

It is tempting to use a ladder for all sorts of work but you should always consider a working platform first, for example:

A properly erected mobile scaffold tower or
A mobile elevated working platform (MEWP).

Jobs such as installation of equipment such as light fittings, removing or installing guttering, installing replacement windows, painting or demolition work should usually be carried out from scaffolds or mobile access equipment.

16.2 Protecting the public

Contact the appropriate highway authority before erecting a scaffold on a public highway -or on any roads, pavements, paths or routes used by the public.
Ensure the scaffold is designed to carry the load from stored materials and equipment. Scaffolds

should be designed to prevent materials falling. You may need to provide brick-
guards, netting or sheeting. Where the risk is high, or for example during demolition or facade cleaning, you should provide extra protection in the form of scaffold fans or covered walkways.

In populated areas such as town centres, erecting and dismantling scaffolds should preferably be undertaken during quiet times. People should be prevented, with suitable barriers and signs, from walking under the scaffold during erection or dismantling.

Stop unauthorized access on to the scaffold, for example by removing all ladders at ground level, whenever it is left unattended.

Never allow material of equipment to be thrown up to or down from the scaffold. These must be lowered or hoisted in a controlled fashion with a line. Use mechanical hoists or rubbish chutes to move materials and waste.

16.3 Scaffold erection

A scaffold should be designed, erected, altered and dismantled by competent people, with all scaffolding work under the supervision of a 'competent person'.

Scaffolders should always adopt a safe system of work during the erection, altering and dismantling of scaffolds. This will usually include the use of fall arrest equipment.

16.4 Typical independent Tied Scaffolding

All scaffolds require bracing to help prevent them from collapsing. The platform of a general purpose scaffold should be a clean four boards wide. All scaffolds, including "independent" scaffolds, should be securely tied, or otherwise supported. More ties will be required if.

The scaffold is sheeted or netted due to the increased wind loading;
It is used as a loading platform for materials or equipment; or
Hoists, lifting appliances or rubbish chutes are attached to it

System scaffolds should be erected following the manufacturer's instructions and may require more tying than independent scaffolds,

16.5 Safe use of scaffolds

Do not take up boards, move handrails or remove ties to gain access for work,

Changes should only be made by a competent scaffolder.

Never work from platforms that are not fully boarded.

Do not overload scaffolds. Make sure they are designed to take the loads put on them. Store materials so the load is spread evenly.

Make sure there is suitable stair and ladder access onto the working platform.

16.6 Scaffold inspection

Scaffolds must be inspected by a competent person:

Before first use;
After substantial alteration;
After any event likely to have affected their stability, for example, following strong winds; and
At regular Intervals not exceeding seven days.

Any faults found must be put right immediately.

Before contractors allow their workers to use someone else's scaffold they must make sure it is safe.

16.7 Scaffolding Ladders

Ladders should be in good condition and examined regularly for defects. You should have a management system in place to ensure that this is done.

They should be secured so they cannot slip, usually by tying them at the top.

The ladder should be angled to minimize the risk of slipping outwards and as a rule of thumb needs to be. "One out for every four up".

Access ladders should extend about I meter above the working platform. This provides a handhold for people getting on and off.

Do not overreach: if you are working from a ladder. Make sure it is long enough and positioned to reach the work safely.

Do not climb or work off a ladder unless you can hold onto it.

16.8 LADDERS

Ladders are best used as a means of getting to a workplace. They should only be used as a workplace for short-term work. They are only suitable for light work.
If ladders are to be used, make sure:

The work only requires one hand to be used;
The work can be reached without stretching;
The ladder can be fixed to prevent slipping;
A good handhold is available.

However, this kind of work can still be dangerous - many ladder accidents happen during work lasting less than 30 minutes-The longer the ladder, the more problems here are in using it safely. It gets harder to handle, is more difficult to foot effectively and it flexes more in use. Make certain there is no other better means of access before using a ladder. Also remember that if people

have to use a ladder in several places, which requires them to con scantly move the ladder, it is possible that carelessness will creep in.

In order to use a ladder safely, the person should be able to reach the work from a position I metre below the top of the ladder. At least four (4) round (rungs should show above the platform, but NOT more than five (5).

Many accidents result from using ladders for a job when a tower scaffold or mobile access platform would have been safer and m o r e efficient.

Make sure light tools are carried in a shoulder bag or holster attached to a belt so that both hands are free for climbing. Heavy or bulky loads should not be carried up or down ladders - a gin wheel or other lilting equipment should be used instead.

For safe use the ladder needs to be strong enough for the job and in good condition.

Check the stiles are not damaged, buckled or warped, no rungs are cracked or missing and any safety feet are not missing;

Do not use makeshift or home-made ladders or carry out makeshift repairs to a damaged ladder;

Do not use painted ladders, as the paint may hide faults; and

Ladders made for DIY or home use may not be strong enough for site work and are best avoided.

Do not attempt to construct or repair ladders.

It is accepted that in certain cases constructed ladders will be used. In these cases extra consideration of the risks and hazards involved should be carefully considered. This must include consideration of the height at which such equipment will be utilised. In the case of "constructed ladders" any inspection routine needs be increased and formal reports of these inspections maintained.

Check the ladder is secure. More than half of the accidents involving ladders happen because the ladder was not prevented from falling or slipping- Ladders arc only safe when they rest on a firm, level surface. Do not place them on loose bricks or packing. They should also be secured by rope or other suitable stabilisation devices, such devices muse ensure that the ladder does not run sideways; or Slide away from the wall. Also, make sure,

The ladder is angled to minimise the risk of slipping outwards; as a rule of thumb the ladder needs to be "one out for every four up";

The top of the ladder rests against solid surface, ladders should not rest on fragile or other insecure materials such as cement sheet, or plastic guttering;

Both feet of the ladder are on a firm footing and cannot slip; If the ladder is more than 3 metres

long, or used as a way to and from a workplace, it is secured
from falling. This will usually be by fixing at the top, or sometimes the base;
If the ladder cannot be fixed, a second person foots the ladder while it is being used (this also applies while the ladder is being fixed);
The ladder extends a sufficient height (about I metre) above any landing place where people will get on and off it unless some other adequate handhold is available; and
Where ladders are used in a run measuring a vertical distance of more than 9 m, suitable landing areas or platforms are provided. The only exception to this relates to some steeplejacks' ladders which may not have landing places this often. Nevertheless, provide as many landing places as possible.

16.9 Step-ladders

Step-ladders provide a free-standing means of access, but they require careful use. They are not designed for any degree of side loading and are relatively easily overturned. Avoid over-reaching.

People have been killed getting down from workplaces such as loft spaces when they have stepped onto the top step of a step-ladder which has then overturned. The top seep of a step-ladder should not be worked from unless it has been designed for this purpose.

Do not use the top platform of a stepladder unless it is designed with special handholds. Ensure

stepladders are positioned on level ground and used in accordance with the manufacturer's instructions.

17.0 Confined Space

17.1 General Requirements

A confined space entry permit shall be issued prior to entry into a confined space located within the project site. Other permits may be required (e.g., hot work permit or cold work permit), depending on the type of work to be conducted within the confined space.

Every job that requires a confined space entry shall have a designated confined space entry supervisor.
A standby man shall be assigned by the supervisor at each designated entry point and shall continuously monitor the confined space entry while personnel are inside the confined space. In

certain situations (e.g., multiple entry/exit points) more than one confined space standby man is required.

Standby men shall be provided with adequate means of communication (e.g., two-way radio) to ensure continuous communication with entrants and with the proper personnel (e.g., supervisor, rescue team) in event of an emergency.

At least one fire extinguisher (30 lb) shall be provided near each designated confined space entry point if the space is within process equipment (e.g., vessel, column, and tank) or where combustible or flammable material may be present (including residue). Carbon dioxide (CO2) type fire extinguishers shall not be used inside enclosed confined spaces.

A confined space entry checklist shall be used by the supervisor, to help ensure safety requirements are met.

Confined space standby men and entrants shall be physically fit for entry.

Each designated confined space entry point shall be evaluated to ensure entrants can safely enter and exit the confined space. Designated entry points shall not be blocked or obstructed with equipment while entrants are inside the space (e.g., air cooling/ventilation hoses blocking an entry point).

The completed work permit(s) (e.g., confined space entry, hot work), confined space warning signs and barricades shall be posted outside the confined space to notify personnel that a confined space entry is in progress and to prohibit entry by unauthorized personnel.

When the potential exists for persons or objects to fall into a confined space, additional warning signs and/or barricades shall be provided.

Prior to entry, chemical and physical hazards shall be eliminated or controlled by one or more of the following methods: equipment isolation (e.g., lockout/tagout), draining, water washing, steam cleaning, purging, etc.

Mechanical ventilation (e.g., air movers) shall be used to ensure removal of all hazardous airborne contaminants in confined spaces where a hazardous atmosphere exists or could develop during the course of planned work.

The proper personal protective equipment (PPE) shall be provided to personnel entering a confined space and to each standby man. PPE shall be continuously used during the confined space entry.

Only properly trained and authorized personnel shall enter a confined space. Verification of training shall be made available upon request by the Client.

Personnel entering/exiting a confined space shall sign a log in/out sheet.

Ignition sources shall be eliminated or controlled within a confined space. If ignition sources are present (e.g., sparks or open flames), a hot work permit shall be issued and periodic gas tests performed.

Electrical equipment, including lighting, used in an electrically classified area shall be approved or equivalent. Electrical equipment (including radios) shall be in accordance with the electrical classification of the confined space and as per the requirements of the Client.

Ground fault circuit interrupters (GFCIs) shall be utilized on all electrical- powered equipment used inside a confined space regardless of the electrical classification of the space.
Lighting shall be provided as needed to safely enter, exit and work inside a confined space. Lighting shall be on a separate electrical circuit from other electrical equipment and tools used in the confined space.

When electrical power cords are used inside a confined space, protection shall be provided near sharp edges and through entry points to prevent damage to the power cords.
Compressed gas cylinders shall not be placed in a confined space.

Internal combustion engines shall not be positioned inside a confined space or at a location that could allow exhaust to enter the space. This type of equipment shall be positioned downwind from confined space entry/exit points and air mover intakes.

Personnel in an enclosed confined space where vertical rescue may be required shall wear a full-body harness.

Fall protection (e.g., full-body harness/lanyard, scaffolding) shall be used if personnel could fall more than 1.8 m (6 ft) when working inside the confined space.

Flammable/combustible materials shall not be stored inside a confined space.

Entry into a confined space where naturally occurring radioactive material contamination is known or suspected shall be subject to the following controls:

- An enclosed confined space shall be mechanically ventilated for a minimum of four hours prior to entry.
- Personnel and equipment exiting the confined space shall be subject to a contamination survey.

- Personnel or equipment found to be contaminated with naturally occurring radioactive material contamination shall be segregated and decontaminated.

Rescue equipment and a rescue team shall be available in the event of an emergency requiring evacuation of the confined space.

In the event of a confined space rescue, the confined space atmosphere shall be considered immediately dangerous to life or health (IDLH) and positive-pressure self-contained breathing apparatus (SCBA) or air-line respirators with an emergency escape cylinder shall be used by all personnel entering the confined space.

If the confined space entry activity is suspended, the entry point(s) shall be barricaded and a "NO ENTRY" sign shall be posted.

When work is complete and the confined space is ready to be returned to normal service, the confined space shall be inspected to ensure all equipment and tools have been removed, etc.

17.2 Responsibilities

Supervising Operator, Work Permit Issuer shall:

Review the confined space entry plan that is unique to the specific confined space. Communicate the confined space entry plan (e.g., specific confined space hazards, precautions, responsibilities, emergency procedures) to entrants and standby men.

Ensure proper work permits (confined space entry, hot work, etc.) are issued.

Verify all precautions of the confined space entry plan and applicable work permits are properly implemented.

Designate qualified standby men who are fluent in the language needed to communicate with the supervisor or rescue team.

Verify entrants and standby men are properly trained.

Coordinate confined space operations when employees of more than one maintenance crew or contractor will be working simultaneously inside or adjacent to the confined space.

Provide sufficient manpower and equipment for safe confined space entry and work inside the space.

Verify the confined space is properly isolated purged and the atmosphere is safe to enter.

Ensure the atmosphere within the confined space is monitored as indicated on the confined space entry permit and/or the confined space entry plan.

Ensure confined space entry and gas test logs are properly completed.

Ensure the proper PPE is provided to personnel entering the confined space and to each standby man.

Ensure adequate means of communication (e.g., two-way radio), fire extinguisher (non-CO2 type) and SCBA are available to each standby man.

Verify rescue equipment and a rescue team are available in the event of an emergency requiring evacuation of the confined space.

Ensure the confined space entrance is barricaded/blocked and a "NO ENTRY" sign posted if the confined space entry is suspended.

Terminate confined space entry and cancel work permit(s) as necessary (e.g., unsafe conditions develop).

Confined space standby men shall:

Review the confined space entry plan and applicable work permits to understand the confined space hazards, precautions, responsibilities and emergency procedures.

Understand the effects of exposure to potential hazardous substance(s) in the confined space.

Maintain a confined space entry log and maintain a continuous count of entrants

Prevent unauthorized personnel from entering the confined space.

Monitor activities inside and outside the confined space to determine if it is safe for entrants to enter and/or remain inside the space.

Maintain two-way communication with entrants to monitor entrant status (e.g., behavioral effects of hazard exposure) and alert entrants of a need to evacuate the confined space.

Have communications equipment readily available on-site and immediately notify proper personnel (e.g., supervisor, rescue team) in event of an emergency.

Remain at the confined space entry point until relieved by another designated standby man or until all entrants have exited the confined space.

Never attempt to enter the confined space, even in an emergency, until relieved.

Perform no other duties that could interfere with his primary responsibilities as a confined space standby man.

Order entrants to evacuate the confined space under any of the following conditions:

- An unsafe condition develops inside or outside the confined space.
- An entrant displays abnormal behavioural effects of hazard exposure.
- If he must leave the area and no relief confined space standby man is provided.

Entrants into a confined space shall:

Review the confined space entry permit and confined space entry plan and verify that all precautions have been properly implemented.

Understand the effects of exposure to potential hazardous substance(s) in the confined space.

Understand the proper use of PPE that is to be used inside the confined space.

Not enter a confined space until they are satisfied that all necessary precautions have been properly taken to ensure their safety and they clearly understand their work assignment within the space.

Communicate with the confined space standby man to enable the standby man to monitor the entrants' status (e.g., behavioral effects of hazard exposure).

Promptly alert the confined space standby man and other entrants, and/or exit from the confined space as quickly as possible, whenever:

- An order to evacuate is given by the confined space standby man or the supervisor.
- The entrant recognizes any warning signs or symptoms of exposure to a hazardous condition or substance.
- An emergency alarm is activated.

17.3 Confined Space Entry Plans

A confined space entry plan shall be developed prior to entry into a confined space.

The confined space entry plan shall include, but not be limited to, the following:

- Scope of work.
- Results of hazard evaluation (e.g., potential hazards in the confined space and the adjacent area).
- Location and method for each isolation point of the confined space, including a drawing and blinding list to assist in verifying isolation of all energy sources.
- Procedures for cleaning, flushing, purging and/or ventilating the confined space to eliminate or control atmospheric hazards.
- Access and egress requirements.

- Pedestrian, vehicle or other barriers as necessary.
- Fall protection plans whenever an entrant could fall more than 1.8 m (6 ft).
- Types and frequency of atmospheric gas testing.
- Types of PPE required (e.g., flame-resistant clothing [FRC], hardhat, safety glasses/goggles, safety shoes, respiratory protective equipment, appropriate gloves, protective coveralls based on potential skin absorption of hazardous materials).
- Work permits requirements for controlling hazards inside the confined space.
- Types of equipment required for confined space entry (e.g., scaffolding, air movers, rescue equipment, communication equipment, fire extinguishers).
- Emergency response/rescue procedures.

The confined space entry plan shall address potential hazards that could develop when employees of more than one maintenance crew or contractor are working simultaneously as authorized entrants in the confined space. The confined space entry plan shall be made available

for review by personnel involved in the
confined space entry.

17.4 Isolation and Lockout/Tagout of Confined Space

Before personnel are permitted to enter a confined space, all equipment and sources of kinetic and potential stored energy shall be physically de- energized, immobilized, disabled, relieved, disconnected and Potential sources of energy include, but are not limited to, electrical, mechanical, hydraulic, chemical and pneumatic systems.
Precautions shall be taken to ensure that air contaminants from adjacent processing or chemical handling cannot enter the confined space.

17.5 Atmospheric Gas Testing

Atmospheric gas testing within confined spaces shall include, but not be limited to, testing for oxygen (O2), flammable mixtures (Lower Explosive Limit [LEL]) and toxic gases (e.g., H2S). Atmospheric gas tests shall be performed and immediately recorded:

- Prior to entry.
- After breaks or other interruptions in the work.
- If there is any reason to believe that conditions inside the confined space have changed.
- At periodic intervals (e.g., every 2 hours) as necessary to determine whether acceptable atmospheric conditions are being maintained during the course of the confined space entry.

Initial gas testing prior to entry shall be performed with all mechanical ventilation shut down at least 15 minutes prior to testing.
Initial entry shall be prohibited if gas testing indicates an oxygen deficiency or the presence of unacceptable levels of flammable (LEL) or toxic materials, etc., within the confined space. Only after purging with mechanical ventilation and/or cleanup has rendered the space free of hazardous concentrations (as verified by continuous gas testing inside the confined space) shall initial entry be allowed. Additional gas testing (e.g., after breaks) shall be conducted with the ventilation system turned
on to ensure that contaminants are being removed and that the ventilation system is not a source of contamination Continuous gas testing (e.g., by use of personal gas monitors) shall be used if the atmosphere
inside the confined space is subject to change or if confined space entry activities involve combustion (e.g., welding or torch cutting). Monitoring for carbon monoxide (CO) shall be conducted if activities inside the confined space
involve combustion (e.g., welding, torch cutting).
Whenever a hazardous atmosphere is detected, the confined space shall be evacuated of all personnel until corrective actions have been taken and it has been verified by the supervisor that the confined space is safe for re-entry. Hot work shall not be permitted if the atmosphere is above 0% of the LEL. The following conditions are required prior to entry into or work inside a confined space:

- No atmosphere-supplying respirator is required if:
- Oxygen (O2) concentration is between 20.0% and 23.5%.
- Flammable mixtures are less than 5% of the LEL.
- CO is at or below 35 parts per million (ppm).
- Hydrogen sulfide (H2S) is at or below 10 ppm.
- Other potential toxic gas concentrations are at or below their threshold limit value (TLV).
- An atmosphere-supplying respirator shall be continuously worn if:
- O2 concentrations are less than 20.0%.
- Flammable mixtures are at or above 5% and less than 50% of the LEL.
- CO concentration is above 35 ppm and at or below 1200 ppm.
- H2S concentration is above 10 ppm and at or below 100 ppm.
- Other potential toxic gas concentrations are above their designated TLV and at or below their IDLH level.
- The work permit is countersigned by Client representative.

Confined space entry is not permitted at concentrations above 23.5% O2, at or above 50% LEL, above 1,200 ppm CO, above 100 ppm H2S, or above the IDLH of any other potential toxic gas.

17.0 Ventilation

Mechanical ventilation (e.g., air movers) shall be used to ensure the removal of all hazardous airborne contaminants in confined spaces where a hazardous atmosphere exists or could develop during the course of planned work (painting, welding, etc.).

If the confined space is within process equipment or where combustible or flammable material may be present, mechanical ventilation shall be used during the entire period of occupancy, even if gas testing indicates no hazardous concentrations inside the space.

Flammable/toxic gases or vapors vented from a confined space shall be removed in such a manner that the release does not pose a risk to employees, equipment or operations. Precautions shall be taken to eliminate potential sources of ignition in areas where flammable gases or vapors are vented.

Where practical, mechanical ventilation shall provide air blowing into the bottom or lower portion of the confined space and exhaust out the top or upper portion of the space.

Blowers or other means of introducing air into a confined space shall be placed so as to minimize the possibility of introducing air contaminants (e.g., CO).

All electrical and static-producing equipment, including air movers, shall be properly grounded and bonded to the vessel/tank (if applicable).

Mechanical ventilation rates for confined space operations involving application of coating materials, including during the paint curing/drying process, shall meet the minimum requirements.

Ventilation Requirements for confined Space

Volume of Confined Space		Required Air Mover Capacity	
m3	bbl	L/s	cfm
16	100	472	1,000
80	500	1,180	2,500
160	1,000	2,360	5,000
800	5,000	4,720	10,000
1,600	10,000	7,080	15,000
4,000+	25,000+	9,440	20,000

Mechanical ventilation/cooling shall be directed at the immediate areas where persons are working within the confined space and shall continue until all person(s) have left the space. For some jobs, such as welding, grit blasting, spray painting, etc., additional ventilation may be necessary to sufficiently reduce the accumulation of hazardous vapor, mist or particulates. Local exhaust ventilation may also be required for such jobs when the internal configuration of the confined space impedes air circulation.

Plant air or engine-driven compressed air shall never be used for mechanical ventilation. In lieu of mechanical ventilation, natural ventilation may be used as the source of ventilation in a confined space only if there is no potential for the development of a hazardous atmosphere.

8.0 Cleaning

Confined spaces shall be cleaned and decontaminated of hazardous materials. Cleaning and decontamination shall be performed to the maximum extent feasible before entry by personnel. The method of cleaning, type of equipment used and safe work procedures shall be selected based on the specific hazards of the confined space.

Prior to entering a confined space that contains unknown residual materials, samples of the materials shall be properly analyzed (e.g., lab analysis) to determine their hazardous characteristics. Whenever possible, samples shall be taken without entering the confined space.

Entrants and equipment shall be decontaminated and cleaned as necessary during and after the confined space activity.

9.0 Training

Confined space entry supervisors, standby men, entrants, etc., shall receive confined space entry training that is appropriate to their specific responsibilities. Refresher training shall be provided periodically.

Confined space entry training and refresher training shall include, but not be limited to, the following topics:

- Hazards associated with confined space entry.
- Specific responsibilities of entrants, standby men, entry supervisors, rescue personnel, etc.
- Confined space entry permit requirements.
- Isolation of energy sources.

- Emergency response plans and pre-incident action plans.
- PPE requirements.
- Air-line respirator and SCBA training
- Proper mechanical ventilation techniques and atmospheric gas testing.

Training for confined space standby men shall also include the following at a minimum:

- Hazards that may be encountered by entrants and the signs and symptoms of over exposure t0 potential contaminants inside the confined space.
- Procedures for summoning rescue or other emergency services.
- Proper use of equipment used for communicating with entrants and emergency response personnel.

Training for emergency response and confined space rescue personnel shall include the following at a minimum:

- Emergency response training, including specific training for confined space rescue.
- Use of emergency rescue equipment and medical equipment expected to be used during a confined space rescue.
- First aid and basic life support, including cardio pulmonary resuscitation and automated external defibrillator.

18.0 VEHICLE INSPECTION SAFETY

18.1 Mobile Equipment Operation

18.1.1 General

Equipment shall be used for the intended purpose of the manufacturer. We will maintain a copy of the equipment manufacturer's operation manual on site. No alterations or modifications shall be performed to the equipment without the manufacturer's approval, which must be documented. Equipment will be operated within capacity as outlined in the manufacturers operating manual.

18.1.2 Equipment Inspection

Prior to being used, equipment arriving at the site will be inspected by a competent person designated by us. The incoming inspection shall be documented on the appropriate equipment inspection form. Owner will inspect all vehicles and fuel driven construction equipment prior to mobilizing it onto the jobsite and annually thereafter. The condition of the vehicle, equipment operator/driver license, operator competency certification and insurance will be reviewed prior to the issuance of a site access pass. Third party inspection certificates of all lifting equipment must also be submitted to Client review.

All lifting equipment (cranes, derricks, aerial lifts, boom trucks, man baskets, etc.) shall be inspected by a third party inspection company prior to mobilization to site and annually thereafter.

Each piece of equipment shall undergo a formal, monthly inspection by a competent person, which will also be documented on the appropriate inspection report and the correct color-coded inspection sticker attached to the equipment.

The equipment operator shall perform a daily inspection checklist. Any deficiencies noted on the report shall be addressed. Defective equipment shall be repaired or removed from service immediately.

If deficiencies affect safe operation or cause non-compliance with agencies the equipment will be shut down and tagged defective until corrective action is completed. Deficiencies corrected will be documented on the inspection form that noted the deficiency along with signature of inspection.

A copy of the most recent inspection report will be maintained on each piece of equipment as well as in our file.

18.1.3 Equipment Requirements

All motorized equipment must have a reverse signal alarm audible at 30 meter distance above the surrounding noise level. In addition while the equipment is being operated shall have a flagman wearing a yellow reflective vest and equipped with a red flag and a green flag.

All cracked and broken glass shall be replaced before bringing vehicles on the jobsite. If glass is broken or damaged on jobsite and if damage is severe enough to cause a potential safety problem, the machine shall be stopped until such damage has been repaired.

Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried and all passengers should be properly seated. Standing on the back of moving vehicles is prohibited. It is not allowed to transport employees in the back of pick-up trucks or any open vehicle.

Client shall review and approve locations for storage of all fuels, lubricants, and starting fluids prior to use by us for storage. We shall equip all vehicles and fuel driven construction equipment with a fire extinguisher, red triangles, flashlight and a first aid kit.

18.1.4 Safety Devices

We shall equip all vehicles and fuel driven construction equipment with a fire extinguisher, red triangles, flashlight and a first aid kit. All rubber tired, self propelled scrapers, rubber tired, front-end loaders, rubber tired dozers, wheel type agricultural and industrial tractors, crawler tractors, crawler type loaders and motor graders shall be equipped with rollover protective structures and seat belts.

Inspection of these devices will be included as part of the operators' daily pre-operational inspection, as well in the formal monthly inspection. No equipment shall be operated with defective or missing safety devices.

D. OPERATORS All equipment operators must be trained and certified

by us for the
equipment that they operate. All operators of construction equipment must have a valid Saudi Arabian Government equipment operator's license and certified for that specific equipment by a competent person. Copies of the certifications shall be maintained on jobsite by us and made available to Client upon request.

Documentation of equipment an operator is qualified to operate must be maintained with that operator. Also a copy must be maintained in the employee file. The documentation must be specific for the equipment being operated and signed by our authority.

18.2 VEHICLE OPERATION

18.2.1 Policy:

Vehicles are to be operated in a safe manner consistent with local Saudi Arabian Government laws. All accidents must be reported promptly according to procedures outlined below. The use of vehicles is limited to necessary Company business.

Personnel permitted to drive vehicles (e.g. Company automobiles, delivery vehicles, trucks, forklifts, tractors, loaders, back hoes, bobcats, mowers, etc.) must demonstrate the knowledge and ability to operate the equipment safely to the satisfaction of a qualified examiner.

18.2.2 Responsibilities:

a. Driver's Supervisor

1. ensures that employees under his/her supervision who drive vehicles possess a valid SAG driver's license.

2. Ensures that vehicles are used only for official Company business and carries only Company employees who are authorized passengers.

3. Ensures all operators of powered industrial trucks are properly trained in the operation of the vehicles.

4. Ensures all vehicle drivers have the necessary medical examinations to ensure that the driver is physically qualified to operate the equipment.

5. Regularly inspects vehicles and vehicle systems. Employee 1. Carries the required, valid SAG driver's license 2. Inspects daily the

b. vehicle before it is used. Items to be checked should include the forks, batteries, wheels, cables, lights, horns, back-up alarm, mirrors, steering, brakes, tires and controls.

3. Reports any defects or malfunctions to the supervisor immediately. Does not use a malfunctioning vehicle if the defect impairs the safe operation or use of the vehicle.

4. Operates equipment safely and in accordance to operating instructions.

5. Wears appropriate protective equipment at all times. Safety and Health Manager 1. Maintains with the Supervisor, records of employee qualification tests.

c. 2. Assists, when necessary, in selection and designation of jobs which require powered industrial trucks.

3. Periodically and routinely inspects vehicles and vehicle operations.

4. Coordinates with the supervisor, training programs for use and operation of the vehicles.

19.0 FLEET MOTOR VEHICLE SAFETY PROGRAM

19.1 Policy:

A. Motor vehicles shall be acquired, maintained and utilized in support of Company objectives, in the minimum quantity required and in the most practical and economical manner consistent with program requirements, safety considerations, fuel economy, and applicable laws and regulations.

B. the Company shall designate a Fleet Manager to be responsible for the motor equipment operations and to serve as a single point of contact for issues, information and reports on motor equipment.

C. Each Fleet Manager will maintain vehicle use records including home-to-work usage. D. No employee shall use a Company vehicle for transportation between their home and place of employment without the expressed written approval of the Fleet Manager.

19.2 Scope:

The Fleet Motor Vehicle Safety Program applies to all locations where Company vehicles are operated. These include the following Company operated vehicles:

1) Company Cars

2) Company Mini Trucks

3) Company Heavy Equipments and Trucks

19.3 Definitions:

A. "Fleet Manager" means the official designated to oversee the motor vehicle operations of the Company

B. "Company Vehicle" means any vehicle owned or leased by the Company.

C. "Heavy Equipment" means any equipment, self-propelled or drawn by mechanical power, designed to be operated principally on highways in the transportation of property or passengers.

D. "Passenger Motor Vehicle" means any vehicle whose primary purpose is to transport passengers (sedans, station wagons, ambulances, buses, and passenger vans).

This program highlights the fundamental responsibilities of Company for its maximum safety to implement in order to reach the awareness of all working employees.

20.0 ACCIDENT/INCIDENT INVESTIGATION & REPORTING PROCEDURES

20.1 Introduction:

The Company Accident/Incident Investigation & Reporting System is designed to:

1. Track and analyze employee injuries and illnesses, property and vehicle damage, as well as serious events or near misses which might have resulted in personal injury, illness, or property and vehicle damage.

2. Initiate the worker's compensation process, if necessary

3. Meet regulatory reporting requirements All incidents (accidents resulting in injury or causing illness to Company employees) and
events (near-miss accidents) shall be reported in order to:

- Establish a written record of factors which cause injuries and illnesses and occurrences (near-misses) which might have resulted in injury or illness but did not, as well as property and vehicle damage.
- Maintain a capability to promptly investigate incidents and events in order to initiate and support corrective and/or preventive action.
- Provide statistical information for use in analyzing all phases of incidents and events involving Company personnel.
- Provide the means for complying with the reporting requirements for occupational injuries and illnesses.

20.2 Applicability and Scope:

The Incident Reporting System requirements apply to all incidences involving Company personnel arising out of or in the course of employment which results in (or might have resulted in) personal injury, illness, and/or property and vehicle damage.

Incidents (Occupational Injuries and Illnesses)

Injuries and illnesses that require reporting include those injuries and illnesses occurring on the job which result in any of the following: lost work time, restrictions in performing job duties, requirement for first aid or outside medical attention, permanent physical bodily

damages, or death. Examples of "reportable injuries and illnesses include, but are not limited to, heat exhaustion from working in hot environments, strained back muscles from moving equipment, acid burns on fingers, etc.

Other incidents requiring reporting include those incidents occurring on the job which result in any of the following: injury or illness, damage to a Government vehicle, fire/explosion, property damage, or chemical releases requiring evacuation of at least that immediate spill area. Examples of reportable incidents include denting the fender of a Government vehicle, spilling 1 liter of sulphuric acid on the floor, and release of pressurized air through a leaking valve into a room.

Examples of "non-reportable" injuries and illnesses include small paper cuts, common colds, and small bruises not resulting in work restrictions or requiring first aid or medical attention.

20.3 Investigating an accident

The term "accident" can be defined as an unplanned event that interrupts the completion of an activity, and that may (or may not) include injury or property damage. An incident usually refers to an unexpected event that did not cause injury or damage this time but had the potential. "Near miss" or "dangerous occurrences" are also terms for an event that could have caused harm but did not.

Reasons to investigate a workplace accident include:

- most importantly, to find out the cause of accidents and to prevent similar accidents in the future
- to fulfil any legal requirements
- to determine the cost of an accident
- to determine compliance with applicable safety regulations
- to process workers' compensation claims

Incidents that involve no injury or property damage should still be investigated to determine the hazards that should be corrected. The same principles apply to a quick inquiry of a minor incident and to the more formal investigation of a serious event.

The information that follows is intended to be a general guide for supervisors or joint occupational health and safety committee members. When accidents are investigated, the emphasis should be concentrated on finding the root cause of the accident rather than the investigation procedure itself so you can prevent it from happening again. The purpose is to find facts that can lead to actions, not to find fault. Always look for deeper causes. Do not simply record the steps of the event.
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20.4 The reason for an accident investigating

Ideally, an investigation would be conducted by someone experienced in accident causation, experienced in investigative techniques, fully knowledgeable of the work processes, procedures, persons, and industrial relations environment of a particular situation.

Some jurisdictions provide guidance such as requiring that it must be conducted jointly, with both management and labour represented, or that the investigators must be knowledgeable about the work processes involved.

In most cases, the supervisor should help investigate the event. Other members of the team can include:

- employees with knowledge of the work
- safety officer
- health and safety committee
- union representative, if applicable
- employees with experience in investigations
- "outside" expert
- representative from local government

20.5 The immediate supervisor be on the team

The advantage is that this person is likely to know most about the work and persons involved and the current conditions. Furthermore, the supervisor can usually take immediate remedial action. The counter argument is that there may be an attempt to gloss over the supervisors shortcomings in the accident. This situation should not arise if the accident is investigated by a team of people, and if the worker representative(s) and the members review all accident investigation reports thoroughly.

20.6 Looking for the "root cause"

An investigator who believes that accidents are caused by unsafe conditions will likely try to uncover conditions as causes. On the other hand, one who believes they are caused by unsafe acts will attempt to find the human errors that are causes. Therefore, it is necessary to examine some underlying factors in a chain of events that ends in an accident.

The important point is that even in the most seemingly straightforward accidents, seldom, if ever, is there only a single cause. For example, an "investigation" which concludes that an accident was due to worker carelessness, and goes no further, fails to seek answers to several important questions such as:

- Was the worker distracted? If yes, why was the worker distracted?
- Was a safe work procedure being followed? If not, why not?
- Were safety devices in order? If not, why not?
- Was the worker trained? If not, why not?

An inquiry that answers these and related questions will probably reveal conditions that are more open to correction than attempts to prevent "carelessness".

20.7 Steps involved in investigating an accident

The accident investigation process involves the following steps:

- Report the accident occurrence to a designated person within the organization
- Provide first aid and medical care to injured person(s) and prevent further injuries or damage
- Investigate the accident
- Identify the causes
- Report the findings
- Develop a plan for corrective action
- Implement the plan
  Evaluate the effectiveness of the corrective action
  Make changes for continuous improvement

As little time as possible should be lost between the moment of an accident or near miss and the beginning of the investigation. In this way, one is most likely to be able to observe the conditions as they were at the time, prevent disturbance of evidence, and identify witnesses. The tools that members of the investigating team may need (pencil, paper, camera, film, camera flash, tape measure, etc.) should be immediately available so that no time is wasted.

21.0 BRIEF DETAILS OF THE POTENTIAL HAZARDS AND THE METHOD TO BE EMPLOYED

21.0.1 Confined Spaces"

The people who want to enter the confined spaces should have a knowledge of some form of hazards that can be presented in these spaces are lack of oxygen, flammable of toxic gases, electrical, fall potential and mechanical hazards.
Make sure that entry permit has been completed prior to entry; it will assure all conditions have been met for safe entry and an emergency plan has been established. The entry permit must posted in front of the entrance and must be signed who authorized to enter. Never enter in the confined space without approval of your supervisor, only trained and experience personnel shall enter

into it. A competent person must evaluate the space for atmospheric and physical hazards source of hazardous energy must be lock out. Never try to rescue someone in a confined space unless you would have trained in rescue technique. We are exposing below about the confine space.

a) Definition

A confined space has defined as an area which;

- Have adequate size and configuration for employee entry.
- Have limit means of entering and exiting.
- Have not design for continuous employee occupancy.
- A permit required confined space is, that has the potential to have one or more of the following hazards;
- Atmospheric conditions (Toxic, Flammable, Asphyxiation)
- Engulfment
- Configuration
- Any other recognized serious hazards.

Hazards of Confined Spaces

Oxygen Hazards:

Too much oxygen in the air increases the potential for normally Non-flammable material such as grease, oil, or clothing to catch Fire at normal temperature or exposed to sparks or flames. According to OSHA standard the following are defined as high And low Oxygen levels;

23.5 % above	High Oxygen level
20.80 % & 21%	Normal oxygen level for air
19.0 % & below	Low oxygen levels
% Oxygen	Effects of Oxygen deficiency
16 to 12%	* deepening breathing, accelerated Heartbeat, impaired attention, impaired – thinking, impaired coordination
14 to 10%	Poor coordination, rapid fatigue from exertion that may caused permanent heart damage
10% or below	Nausea, vomiting, inability, to perform vigorous movement, or unconsciousness, followed by death.

a) Flammable Hazards

A flammable or explosive atmosphere contains gases, vapors or dusts in concentrations high enough to ignite or explode. Common flammable atmospheric include methane gas.

b) Toxic Hazards

Some toxic atmospheres are immediately dangerous to life and health idle. Instance hydrogen sulphide, sulphur dioxide, carbon monoxide.

c) Engulfment

It is defined as a liquid or solid substance that traps the entrant. Death can occur due to the inhaling the substance or by surrounding the entrant it will cause strangulation constriction or crushing.

d) Configuration

It is the internal size or shape of the space. An entrant can be trap or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross section.

e) Energy Hazard

Energy hazards are hazards that involve contract with electrical equipment, steam and other sources of heat inside the space. This type of equipment can include shafts, augers, mixers or impellers.

FD shall have written confined space procedure that is acceptable to the Client and which requires that all such work be performed only based on a contractor issued logged and numbered permit. Also responsible for air monitoring and evaluation in confined spaces. At a minimum, in newly constructed confined spaces with little hazard of airborne contamination, monitoring for oxygen, explosive gasses, other potential hazardous substances (carbon monoxide or others) shall be conducted. Monitoring equipment shall be provided by the contractor. Calibrated to manufacturer recommendations and all calibration shall be documented. All employees conducting air monitoring shall have proper, documented training. All calibration and training records shall be made available to the Client.

21.0.2 Heat & Cold Stress Prevention

Contractor shall;

1. Have operating and emergency procedures for heat and/or cold stress.

2. Ensure that all field employees, especially front line supervisor, are trained on the warning signs/symptoms of early heat or cold related disorders, and instructed on the clothing and work methods best suited to avid heat and or cold. Stay times shall be developed to reduce the possibility of heat or cold related disorders, if necessary.
3. Provide an immediately accessible, adequate, and sanitary potable water supply during all period's of the day and has available electrolyte replacement drinks or tablets during seasons of the year when heat stress may occur.

21.0.3 Site Vehicle Operations

Contractor shall;

4. Ensure all vehicles are registered /licensed, maintained in a roadworthy condition, and operated in a safe manner in accordance with manufacturer recommendation.
5. Ensure all persons operating vehicles are healthy and unimpaired, have appropriate and required operator's license, and observe established road regulations and/ or jobsite regulations.
6. Provide seat belts for each vehicle passenger and enforce the wearing of seat belts anytime a vehicle is in motion.
7. When utilized for highway works, hazards-flashing beacons will be fitted and operational in all cases.

21.0.4 Lighting and Illumination

1. Contractor shall ensure that all works are only undertaken in areas and at such times, where adequate illumination exists. Where necessary the contractor shall provide adequate lighting required to perform work safely. Artificial lighting equipment shall be manufactured to recognized international standards acceptable to the Client.

21.0.5 Barriers & Barricades

Contractor is responsible for properly erecting and maintaining barricades and barriers in such a manner that they provide adequate protection and do not impede the work of other contractors unless the Client approves such placement. The Contractor shall:

21.0.5.1 Protect all "leading edges" or drop-offs of a height greater than 1.2 meters, these shall be fenced, guarded or protected to prevent the fall of either persons or materials.

21.0.5.2 Protect by adequate barrier, all leading edges around excavation and trenches to prevent the ingress of vehicles.

21.0.5.3 Erect Barricades and barriers using appropriate signs and tags indicating the nature of the hazard and the responsible supervisor.

21.0.5.4 Ensure that barricade or barrier left after dark on or in close proximity to roadways are properly equipped with lighting or are illuminated.

21.0.5.5 Provide and use appropriate barrier devices to identify the nature of the job hazard involved, and to warn all personnel. i.e.

- "CAUTION" – Yellow and Black or
- "DANGER" – Red and Black

21.0.5.6 Ensure that barrier devices, including barrier tape shall not be used as a substitute for a barricade as they do not offer adequate protection from falls.

21.0.5.7 Ensure that barrier devices are used only in those applications where temporary identification of hazard is needed; and not as a primary means of protecting employees from exposure.

21.0.5.8 Ensure that employees understand and comply with barricade and barrier procedures (i.e. prohibited entry into red barrier taped areas.

22.0 ENVIRONMENTAL, HEALTH & SAFETY TRAINING

Our foundation for this environmental, health and safety training system is the high quality of our safety training programs developed by our safety training professionals. These safety training programs are presented in an easy way to teach fundamental principles of environmental, health and safety as well to meet the requirements of industry. Each safety training program is followed by a short test to ensure understanding of the training topic and to document compliance with regulations. All of our environmental, health and safety training courses are provided within the framework of a Learning Management System that allows ease of use, flexibility and comprehensive administration of training for our employees. You will find this comprehensive environmental, health and safety training system the solutions to suit your project needs. You will also find this training solution the best value offered today and our employees will find the training interesting, easy to understand as well as easy to use.

Training Courses according to the titles include but not limited to:

22.1 SAFETY

1. Electrical Hazards
2. Lockout/Tagout
3. Ladder Safety
4. Preventing Falls from Slips & Trips
5. Confined Space: The Basics
6. Confined Space Management
7. Personal Protective Equipment: The Basics
8. Office Health & Safety
9. Fire Prevention & Fighting

22.2 H&S PROGRAMS

1. Accident Investigation
2. Health & Safety Committees
3. Return to Work: The Basics
4. Violence in the Workplace Establish a Prevention Program
5. Emergency Preparedness for Workers
6. Emergency Response Planning
7. Health & Safety for Managers & Supervisors
8. Sub-contractor Health and Safety
9. Confined Space Management

22.3 PREVENTION/CONTROL OF HAZARDS

1. Personal Protective Equipment: The Basics
2. Preventing falls from Slips and Trips
3. Confined Space: The Basics
4. Fire Prevention & Fighting

22.4 HEALTH PROMOTION

1. Violence in the Workplace: Awareness
2. Violence in the Workplace: Establish a Prevention Program
3. Violence in the Workplace Recognize the Risk and Take Action

23.0 TRANSPORTATION

This section outlines the procedures and responsibilities for preventing motor vehicle accidents jurisdiction. In addition, it sets the standards for driver performance, responsibility, and vehicle maintenance expected of all drivers. All drivers are expected to drive in a defensive manner and maintain control of their vehicles at all times.

23.1 INSTRUCTIONS

23.1.1 General Instructions:

- Transporting of Loads in Company Rented Motor Transport Vehicles.
- First Aid/Training and First Aid Kits – Remote Areas
- Control of Remote Area Travel and Search/Rescue Procedures
- Reporting and Recording of Motor Vehicles Accidents
- Traffic and Vehicle Safety

Driving in Saudi Arabia: A FD guide to safer driving and Desert travel.

23.2 ENVIRONMENTAL, SAFETY & HEALTH PLAN Requirements – Transportation

23.2.1 Employment of Driver

Only those qualified are employed as drivers of motor vehicles. It is our responsibility to verify the driver's credentials prior to his employment. It is Saudi Arab Government law and our Company rule, that each person driving a motor vehicle must posses and has on a valid Saudi Arab Government driver's license.

23.2.2 Driver's Responsibilities

1. It is the responsibility of the driver to ensure that his vehicle is safe to operate.
2. It is the responsibility of each driver to take his vehicle to the proper facility for servicing and repairs when they are required or scheduled.
3. The driver of the vehicle is fully responsible and accountable for the mechanical and physical condition of the vehicle. He must report any damage, beyond normal wear and tear, immediately.
4. The driver is responsible for transporting materials properly and ensuring that a load does not exceed the manufacture's design load capacity. All loads must be properly secured and tied down. Materials should not extend over the sides of the truck. Loads extending beyond the front or rear shall be marked with a red flag. Also such loads must be equipped with visible brake and tail lights at their rear end points.
5. Tires which have breaks in the casing, or with exposed fabric, shall not be used.
6. Sand tires present a hazard if used on vehicles which are operated at excessive speed especially when they are not properly inflated. It is the driver's responsibility to ensure that FD Transportation Department tire inflation standards are maintained. Proper inflation pressures are posted at the Department's tire shops.
7. Drivers shall not transport unauthorized persons in Company vehicles. The supervisor shall authorize all passengers in the vehicle.
8. The driver and all passengers shall wear seat belts at all times while the vehicle is in motion.

9. Drivers have full authority to refuse to transport any passenger who refuses to use seat belts. Conversely, passengers may refuse to ride with a driver who refuses to wear his seat belt.
10. Passengers shall not be transported in the rear of pickups or on truck beds.
11. Drivers should not transport more passengers than the number of seat belts provided in the vehicle.
12. All drivers shall be familiar with what the Company considers unsafe driving practices and avoid them at all times.
13. The driver must not exceed the posted speed limit. This is the maximum speed allowed in a certain area. Every driver is expected to reduce his vehicle's speed under hazardous weather or road conditions.

23.3 MOTOR VEHICLE REGULATIONS:

Each driver shall become familiar with, and abide by, the Saudi Arab Government Traffic Regulations.

Where there is no sign post indicating the maximum speed limit, no vehicle may be driven at a speed greater than the following:

a) 100 kilometers per hour for light motor vehicles outside city limits.
b) 70 km/hr for vehicles with sand tires.

To drive safely, speed must be reduced below the allowable speed limit at night, or during fog, rain or sand storm.

23.3.1 Drivers shall comply with all Saudi Arab Government traffic signs.

All vehicles shall be parked correctly and/or in designated parking areas. Parked vehicles shall not obstruct other vehicles, roadways, access ways or fire hydrants.

23.3.2 Vehicle Condition

It is the responsibility of the driver to ensure his vehicle is safe to operate. It is the responsibility of the driver to bring the vehicle in for scheduled maintenance. The driver is responsible for inspecting a vehicle before operating it to determine if the following items have been provided and are in satisfactory condition:

23.3.3 Vehicle Inspection Checklist:

1. The vehicle number, company name, current inspection stickers and license plate (front and back) must be in place.
2. Seat belts are mandatory for all vehicle occupants.
3. Two reflective warning triangles should be in each vehicle.
4. Windows and windshield must be clean and free of cracks or damage. The glass must be in good condition. The windows must open and close properly.

5. All lights (high and low beam headlights, tail lights, dash lights, stop lights, turn signal lights, and the rear license plate light) must be in working order. When fog lights (front & rear) and clearance lights have been provided, they must be also in good working order.
6. All brakes (foot and hand brakes) must be in good working order. Check the foot and hand brake mechanism for correct operation.
7. The automatic transmission must be in good operating condition and should shift into the parking position correctly.
8. Springs and shock absorbers must be in good condition with no alignment or control problems.
9. There should be no excessive movement of the steering wheel and no signs of damage. Steering knobs and loose coverings are prohibited.
10. Tires should have no breaks in the tire casing or exposed fabric and must be inflated to correct air pressure as specified by the Transportation Department. If the treads show any signs of wear like bare patches, this could indicate defective steering, springs and/or shock absorbers.
11. Check the wheels for rim damage. Make sure the wheels are not buckled or out of alignment and wheel lug nuts are in place and secure on the rim.
12. If the vehicle is fitted with a trailer, the coupling must be intact and working correctly. The trailer should have safety coupling chains, rear brake lights, turn signals, tail lights and rear license plate lights.
13. Make sure that the inside and outside rear view mirrors are clean, adjusted, secured and undamaged.
14. Check that the windshield wiper blades are in good condition, and operate properly. Inspect the rear window wiper, if fitted. The windshield washer should work properly and there should be water in the washer container.
15. The speedometer should be in good working order.
16. Test the exhaust system by starting up the engine of the vehicle, listening for sounds and spotting any leaks associated with it. Check to see if the tail pipe extends at least three inches from the body of the vehicle. The tail pipe emissions should be released from a point where they do not directly come into contact with the driver of the vehicle or its occupants, thereby causing any adverse health affects to any of them.
17. A properly inflated spare tire with a jack and tire wrench will be provided. The tire wrench should be the correct size to fit the wheel nuts of the vehicle.
18. Check the following fluids for leaks and proper levels, especially in hot weather.

- Radiator coolant
- Oil
- Brake fluid
- Transmission oil (checked with engine running)
- Distilled water for the battery

The driver will check the radiator coolant level only when the engine is cool. Fluid should be added to the level mark on the overflow expansion tank only if provided.

19. The vehicle's horn must be operational.

20. Note all damage on the vehicle, process the proper reports and have the damage repaired. Each driver must conduct a vehicle inspection whenever taking charge of a vehicle and periodically thereafter (at least once a month) to ensure that all systems are operating properly and there is no damage. Passengers will be carried only in the passenger compartment of a vehicle. All vehicle occupants must wear seat belts. Drivers shall insist that all passengers wear seat belts before starting the vehicle. Drivers can receive a moving violation for not adhering to this regulation. Loose materials are to be kept out of the driving compartment. Do not place materials (hard hats, etc.) on rear window shelf.

23.4 DRIVER TRAINING

We conduct driver training courses for its designated drivers/employees. Details about the courses are available from the On-the-Job Training Unit.

23.5 ENFORCEMENT OF SAFE DRIVING PRACTICES

The Industrial Security Organization issues "Unsafe Driving Practice Warning" notices. Our drivers who commit traffic offences are given penalty points. Repeat offenders may receive disciplinary action.

23.6 EMERGENCIES

In the event of serious injury, fire or hazardous road block caused by an accident, the emergency telephone number 03-842 8322 or 03-850 0011 should be used. This will allow Medical Controller to be informed and he will ensure that the proper unit will respond to assist. When reporting any accident, the Controller makes sure the message is understood before hanging up.

23.7 REMAIN AT SCENE

A driver shall not leave the scene of an accident or move his vehicle after an accident unless he needs to take an injured person to a hospital. This is a Saudi Arab Government law and the Traffic Department investigating officer is the only one delegated the authority to release vehicles involved. FD Government Affairs Representative will advise the Client of this release. If a damaged vehicle is blocking traffic or is stopped on the highway, reflective triangles must be used to warn approaching traffic of the vehicle's presence.

23.8 PASSENGER SEATING AND SEAT BELTS

Passengers shall be transported only in passenger compartments of cars, trucks and buses. The number of passengers being transported in the passenger compartment of a vehicle will not exceed the manufacturer's specifications.

Seat belts shall be worn by the driver and passengers in all vehicles.

23.9 DESERT DRIVING

All persons who drive in the desert will study "Driving in Saudi Arabia," the Khazal guide on safe driving tips and desert travel. It is recommended that the driver have a copy with him in the vehicle. Copies may be obtained from FD Loss Prevention area office.

In particular, any person who drives in the desert shall ensure that:

1. His immediate supervisor knows his destination and route.
2. His vehicle is in good condition with adequate fuel, oil, and water.
3. His vehicle has tools, equipment, and spares for emergency use.
4. He has sufficient food and drinking water to sustain him until rescue, should he be stranded.
5. He is familiar with survival and rescue techniques and procedures.

23.9.1 STAY WITH VEHICLE

A person lost or stranded in the desert must stay with the vehicle as it provides shelter and to make it easier for searchers to locate him.

23.9.2 SAND TIRES

Sand tires are hazardous to use when they are not properly inflated, when they are driven at high speeds or when the roads are wet.
Maximum speed for sand tires (on hard dry road):

- 70 KPH at maximum sand tire pressure
- 20 KPH at minimum sand tire pressure

Since sand tires have a larger diameter than standard tires, speedometer readings will not be accurate. Unless the vehicle speedometer has been corrected to account for the oversize tires, the driver should remember that he is traveling approximately 10-15% faster than the speedometer reading.

**********END**********