



الإنباء الخليجي للمقاولات
GULF CONSTRUCTION EST.

ENVIRONMENT, HEALTH, SAFETY & SECURITY PROCEDURE



Environment, Health, Safety and Security (EHSS) Plan

Gulf Construction Est. (GCE) is committed to take all kinds of reasonable measures for the Environment, Safety, Health and Security Plan for our workers on each and every movement of work. Safety plays a very important role in construction work. It is our objective to efficiently achieve our contract target without compromising on safety aspects of our personnel, equipment, plant and as well as the environment. A good and effective construction program will improve the overall performances of the project as well as to help in eliminating and minimizing the accidents.

Safety is an integral part of our daily work activities. Before commencing the work, the Safety Representative will ensure safe work conditions by periodic inspection of work spot, equipment, material conditions, etc. and will arrange to rectify unsafe working conditions.

SAFETY COMMITTEE

The SHE Committee is the company's arm task to make EHSS plan and policies to be implemented at the project sites.

Chairman: Project Manager

Secretary: Safety Supervisor

Members: Safety officer, Site Civil Engineer, Site Electrical Engineer,
Site Mechanical Engineer

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1.0 GCE SAFE WORK PLAN

The Gulf Construction Est. (GCE) in executing the project must consider first the Safety, Health and Environment aspect of the project. With respect to quality control and timetable of the project, safety comes first. GCE EHSS Committee composed of the Project Manager as the chairman, Safety Supervisor as Secretary and the Site Civil Engineer, Site Mechanical Engineer, Site Electrical Engineer and the Safety Officers as the members equipped with technical capabilities in their respective professions who are task to administer, monitor and implement the EHSS plan at the project site with respect to EHSS procedure.

In the execution of the project, GCE will not compromised the safety aspect of our personnel, equipment, the plant as well as the environment by implementing EHSS plan efficiently as proven in our previous projects undertaken in other projects especially Royal Commission Projects. GCE will employ qualified personnel to do the job in a workmanship manner. GCE supervisory personnel and EHSS representative are responsible to make sure the EHSS plan is implemented so that the workers will be are aware of it and in order to achieve zero accident. The project site must be enclosed by a perimeter fence, equipped with site office, temporary electrical and water lines warehouse, shop and other temporary facilities.

2.0 EHSS Responsibilities

The objective is to manage the EHSS risks to GCE employees at jobsite.

GCE has assigned primary responsibility for implementing components of this procedure to specific individuals within the organization. However, all employees are responsible for working safely and maintaining a healthful work environment. This defines the policies and procedures to support effective implementation and integration of EHSS measures into the operations.

The following definitions of responsibilities provide insight into the requirements for the positions within an organization to promote the successful implementation of the GCE EHSS program and its policies and procedures.

General Responsibilities

The project manager, engineers and supervisors are responsible for making every reasonable effort to maintain a safe and healthful work environment free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or damage to facilities or equipment.

No employees are required to work in an unsafe area except to make that area safe, but not before proper procedures are taken to control the unsafe condition(s) in that area for the protection of employees engaged in activities in such areas.

General Manager:

Provides full support and commitment with accountability to the EHSS policy and procedure as well as supporting the GCE EHSS plan. In particular, he:

- Directs the safety and health policies for GCE CLIENT project.
- Authorizes adequate resources to implement these EHSS policy and procedure contained within its EHSS program.
- Promotes sufficient training for all construction personnel, including construction supervisors, to enable them to carry out their responsibilities and implement the EHSS plan.
- Provides that the EHSS plan and policy are communicated and understood within the organization.
- Provides leadership and the direction, for the EHSS policy and procedure contained in this EHSS plan.
- Ensures that the SHE audits are conducted in a regular basis throughout the project including the security measures.
- Provide the venue necessary to hold senior level meetings to address EHSS issues and set action points to achieve the Company's objectives.
- Ensures the monthly recognition/incentive program is provided to all GCE employees working at the project.

Project Manager:

Implement the EHSS policy and procedure at their individual locations. In particular, he:

- Require field supervisors and other designated supervisors to be sufficiently trained to carry out their responsibilities.
- Assign responsibility, authority, and accountability for implementing the EHSS policy and procedure, and ensure that they are communicated and understood within an organization.
- Provide leadership and direction for the EHSS policy and procedure.
- Authorize adequate resources to implement the EHSS policy and procedure.
- Conducts monthly SHE audit to the site together with the project staff and EHSS representative.
- Implement the recognition/incentive program to all GCE employees working at the CLIENT project in a monthly basis.

Site Engineers:

Responsible for monitoring and administering the EHSS plan on the project. In particular, they:

- Administer all phases of the EHSS program established on CLIENT project.
- With the project line supervisors and Safety Engineer, establish a clear understanding of each employee's responsibilities and specific duties.
- Participate in the review of all accident investigation reports and initiate corrective actions.
- Hold formal EHSS meetings each week with the project line supervisors.
- Review a project's EHSS performance each week and take any necessary corrective actions.

- Maintain effective lines of communication to monitor prompt dissemination of information concerning safe work practices through staff meetings and supervision.
- Review and evaluate the individual SHE performance of all supervisors, and provide guidance and training where needed to improve performance.
- Require employee participation in toolbox meetings conducted by GCE personnel.
- Enforce the use of safe work practices through corrective action and recognition programs.

General Foreman:

Report to the Project Manager and monitor EHSS performance in their assigned areas. In particular, he:

- Enforce all phases of a project EHSS plan as well as any special controls issued by the Project Manager.
- With the Project Manager and Safety Supervisor, participate in safety surveys before project commencement and whenever requested.
- Communicate safety information to all project supervisors and alert them to potential dangers that may develop from daily operations.
- Provide proper posting, in locations accessible to all employees, current pertinent information regarding safety work practices, workplace hazards, emergency procedures, and security procedure within the CLIENT project site.
- Implement a workable housekeeping program.
- Assign specific duties to assistants and supervisors, making daily checks of work areas.
- Perform, at a minimum, weekly housekeeping inspections accompanied by the supervisor.
- Keep records of conditions found and corrective actions taken, and perform regular facilities checks.

- Develop and maintain a workable inspection schedule for:
 1. Major equipment such as cranes, trucks, and welding machines.
 2. All rigging equipment, including wire ropes, shackles, blocks, hooks, slings and etc.
 3. Hand and power tools; fire extinguishers.
 4. Scaffolding
 5. All other safety equipment.
- Require all supervisors to train their employees in the proper use of personal protective equipment and enforce the requirements for the use of personal protective equipment.
- Ensure that safety equipment is recovered when employees terminate.
- Spot check housekeeping and construction areas, note and report unsafe acts, unsafe conditions, and/or equipment condition. Also, monitor safe work practices.
- Regularly review SHE issues with supervisors.
- Maintain an effective line of communication of safety matters to all workers.
- Develop and communicate safe job procedures and safe work practices for unusual or hazardous operations.
- Use downtime for safety training and educational purposes, and require supervisors to attend and participate in all safety meetings.

Craft Supervisors:

Report to General Foreman and are responsible for the safety of all project workers, the safe condition of the assigned work area, and the safe operation of equipment.

In particular, they:

- Enforce all phases of a project's EHSS plan and any special controls issued by the General Foreman.

- Monitor the safety of the entire work area including, anybody or anything, not connected with personnel entering, working in, or leaving the work area.
- Inspect the work area for hazards and take necessary corrective actions. Report to the General Foreman any conditions that cannot be readily corrected. This inspection includes housekeeping, hazards from electrical and other utility lines, traffic, other trades, inadequate guarding, elevated work situations, and operations of others.
- Instruct employees to inspect tools and scaffolds before use, spot-check workers' tools and scaffolding.
- Inspect major equipment assigned to the area, check for defects with operators of cranes and other major equipment; perform continuing inspections of assigned work areas.
- Inspect hose, rigging, and hooks in the assigned work area and continuously observe their safe use.
- Maintain a thorough knowledge of safe work procedures and safety rules contained in this EHSS plan.
- To the extent possible, monitor workers' work, alertness, and physical condition.
- Enforce the use of safety lines and other personal protective equipment by area workers when required for safe performance of assigned work.
- Participate in EHSS meetings; conduct toolbox meetings at least once a day with assigned workers.

Safety Supervisor:

Provides field Project Managers and Supervisors with the necessary service relative to SHE activities and advice required to promote an effective SHE plan. He report administratively to the Project Manager on all SHE and security issues. The specific duties are as follows:

- Maintain current knowledge of CLIENT EHSS procedure and of conditions requiring attention.
- Analyze inspections, identify problem areas, recommend solutions, and coordinate jobsite EHSS plan efforts.
- With the Site Engineer / General Foreman and his staff, review existing procedures, rules, and regulations for necessary revisions.
- Conduct weekly housekeeping audits of project site and initiate corrective actions.
- Review all disabling injuries and supervise all investigations.
- Participate with the General Foreman in SHE surveys before project commencement and whenever requested.
- Develop a recognition program that reinforces safe work practices by construction workers.
- Maintain the following records in a file at the jobsite
 1. Employee job site training
 2. Workplace inspection records and corrective actions
 3. Accident reports
- Enforce the use of safe work practices using corrective action and recognition programs.
- Provide pertinent SHE information to be posted in a location accessible to all employees. Information posted includes; SHE policy and procedures; Emergency procedures; Emergency phone numbers
- Develop a checklist for each office workplace, listing items and areas to be inspected.
- Initiate measures to correct unsafe or unhealthy conditions and work practices or procedures when observed or reported.

- Monitor the use of all personal protective equipment, evaluate its effectiveness, and suggest improvements where indicated.
- Generate all accident and investigative reports.
- Requisition all safety equipment.
- Indoctrinate all new employees.
- Maintain records of respirators, safety glasses, earplug's, and safety harnesses issued.
- Maintain records of crane inspections.
- Requisition fire extinguishers and coordinate monthly inspection of firefighting equipment.
- Perform daily inspections of all construction activities and take actions to correct any unsafe conditions or practices.
- Conduct weekly supervisor's SHE meeting.
- Maintain written records of inspections and corrective actions.

GCE Employees:

All employees are required to comply with the SHE policy and procedures, as well as with all applicable project requirements. It is every employee's responsibility to ensure the safety and others. Any employee who violates this policy is subject to disciplinary action, including termination. In most cases employees receive two written safety warnings and, upon the third warning, are subject to termination. However, employees may be subject to termination on first warning if the violation could have resulted in serious physical harm or death to themselves or others, or if serious property or equipment damage could have occurred.

3.0 WORK PERMITS

Gulf Construction Est. (GCE), before commencing any work, must secure first the necessary work permit to the SAFETY AND QUALITY SECTION of CLIENT Safety Department. GCE must employ competent staff permit receiver in securing these work permits.

The GCE Permit Receiver will request from the Work Permit Issuer the required work permit. The work permit should be placed at a conspicuous place where everybody can notice. At the end of the day, each Work Permit must be countersigned by both parties (Issuer & Receiver). Work Permits are normally valid for one shift (8 or 12 hours) work per day and it should be necessary to work beyond this normal working hours, it can be extended up to sixteen hours if the in-coming work permit issuer and receiver agree to the conditions stated in the original work permit or new work permit can be issued. In some cases, work permits can be issued for more than 16 hours but not more than 30 days where the job requirements remain unchanged.

4.0 EXCAVATIONS AND TRENCHING

This procedure shall be carried out by all GCE employees while performing excavation in CLIENT project.

Before to commencing to any excavation or trenching, GCE shall be advised by CLIENT utility department of the proposed work and determine to them the location of all underground installations such as: sewer, telephone, water, fuel, electric and gas lines.

Excavations, trenching and adjacent areas shall be inspected by GCE competent person, after every rainfall, as soil conditions change and as needed throughout the day. If there is evidence of possible slides or cave-ins; indications of failure of protective systems; hazardous atmospheres; or other hazardous conditions; necessary safety precautions must be taken before any additional work in that section of the excavation begins.

GCE employees shall not work in excavations where water is accumulating unless adequate precautions have been taken to protect employees against the hazard

posed by the water accumulation. If water accumulation is controlled or prevented by water removal equipment, the competent person must monitor the removal activities to ensure proper operation.

If the stability of buildings or walls is endangered by an excavation or trench shoring, bracing or underpinning will be provided. Excavations and trenching that are adjacent to backfilled excavation or trenching, or which are subject to vibrations highway traffic, or the operation of machinery (e.g., shovels, derricks, cranes, trucks) will be secured by support system, shield system or other protective systems; i.e., sheet piled shored, and braced.

ACCESS

In trenching 1.2 meters (4 feet) or more in depth, ladders, steps, ramps or other safe means of access and egress shall be provided and located at intervals of 7.5 meters (25 feet) or less lateral travel. If a ladder is used, the ladder will extend 1 meter (3 feet) above the original surface of the ground and must be secured.

Walkways, ramps or bridges with standard guardrails will be provided at all excavations and trenching where employees are required or permitted to cross over. The crossing will be made of tightly secured uniformly sized planking.

SET BACK

GCE employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavation. Protection shall be provided by placing and keeping such materials (including excavated material like earth, Debris, boulder etc) or equipment at least 1 meter (3 feet) from the edge of the excavation, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations or by combination of both.

EQUIPMENT

When mobile equipment of any type is utilized or permitted to operate adjacent to excavations or trenching, barricades or "stop" logs will be provided. All wells, pits, shafts, trenches, or other similar ground fall hazards will be barricaded or covered.

No one will be allowed under loads handled by shovels, derricks, or hoists or near vehicles being loaded by such equipment. Employees exposed to vehicular traffic operating in the area of excavation or trenching will be provided with and instructed to wear warning vests or other personal protective equipment marked with or made of reflectorized or highly visible material.

CONFINED SPACE

Every trench or excavation with a depth of 4 feet or greater shall be tested at least daily for gasses and atmosphere deficiency in accordance with the section, Confined Areas or Spaces of this manual, prior to employees entering the trench. In locations where employees may be subjected to hazardous dusts, gases, fumes, or an atmosphere deficient in oxygen, employees will be provided with proper respiratory protection, instructed in its use, and required to use such protection. Rescue equipment will be immediately available in such circumstances for use by competent personnel.

TRAINING

An employee identified as a competent person will be trained initially and every two (2) years thereafter in accordance with the OSHA Trenching and Excavation Standards.

EXCAVATION PERMIT

A copy of a completed Excavation Permit is to be maintained with the GCE Safety Representative on the project until project completion.

- Any excavation performed by hand or any type of machine or equipment will require an excavation permit prior to start the work.
- The Permit Receiver in charge of the work will fill out the excavation permit and ensure that all approval signatures are on the permit.
- GCE equipment operator will not start any excavation until the permit is present at the excavation site.
- The excavation permit will remain at the site of excavation during the entire time the excavation is being accomplished.

- When the excavation operation has been completed, or when the permit expires, excavation permits shall be closed by CLIENT Issuer and GCE EHSS representative shall retained his copy on file as CLIENT procedure. If the excavation will not be completed within its time frame, a renewal must be applied for and activated prior to the initial expiration date.

5.0 ELECTRICAL EQUIPMENTS

The Gulf Construction Est. (GCE) under no circumstances shall work on, adjacent to, or connect into CLIENT electrical system without securing prior written approval from them. GCE must conduct in accordance with tag-out, lock-out permit procedure and electrical safety procedures. GCE shall review the hazards and precautions with CLIENT Contractor Coordinator and his Representative to determine whether the lines can be energized and is responsible to install suitable guards to prevent an electrical arc or short circuit conditions.

Special care should be taken whenever electrical work is involved. Electrical hazards can result to loss of life and serious damage to property and no matter what voltages are used they should always be treated with great caution.

6.0 ELEVATED WORK & FALL PROTECTION

Gulf Construction Est. (GCE) is committed to safety standards in working in heights by using safety harness and lifelines. Harness in safety ropes must be used for all work where there is danger in falling. Each time before safety harness, lifelines are used. They must be subjected to critical inspection at the installation site to see to it that they are in proper condition even in the event of minimal damage and the supervisor must be notified immediately. Safety ropes and lifelines must be fastened to a reliable fixed point as far as possible vertically above the place of work. It should be insured that the lines are kept as tight as possible. The line must not run over sharp object/edges or shortened by means of knots.

7.0 PORTABLE LADDERS

This procedure outlines general information on specifications, inspections and care of portable ladders on the CLIENT project.

GCE safety representative shall ensure all ladders are inspected monthly and that they are kept in a safe condition.

Shall maintain inspection records and make the records available to CLIENT upon request.

SAFE WORK PRACTICES

- Two or more people are not permitted to work from the same ladder unless it is specifically designed for two people. Safety instructions should be given before employees use a two-person stepladder.
- Splice a 13 mm (1/2-inch) rope to the top back rung of stepladders or to the third rung from the top of straight and extension ladders to provide a tie-off rope when the ladder is set up.
- Do not use metal ladders around electrical services or welding.
- Climbing trestle ladders is not permitted.
- Ladders shall always be used at an angle of 75%. Ladders shall not be used in a vertical position.
- Makeshift wooden ladders and painted wooden ladders shall not be used.
- When not secured at the top, ladders will be properly anchored at the base to prevent the footings from slipping and a second person shall hold the ladder firm in place while being used.
- When ladders are being used for accessing at the same point more than once, it shall be properly secured at the top and extend at least one meter above the landing or work surface.
- Ladders shall always be supported on the ground or floor but never hung.

INSPECTING LADDERS

- Ladders must be in good condition at all times. The user should inspect the ladder before each use.
- Bends, dents, cracks, loose or missing rivets, disconnected braces and corrosion weaken a ladder seriously. Carefully inspect the area around rivet points on fiberglass ladders for hairline stress cracks. Destroy any defective ladders immediately, or remove them from the site.

STORING AND TRANSPORTING LADDERS

- Ladders are to be stored on racks protected from the elements, with good ventilation, and away from excessive heat.
- Storage racks shall have sufficient supporting points to avoid sagging. Long ladders need support every 1.8 meters (6 feet).
- Do not put materials on stored ladders
- Properly support ladders being transported on road, street and highway motor vehicles. Supporting points should be made of material such as wood or rubber-covered iron pipe, to minimize chafing and the effects of road shock.

8.0 VEHICLES SAFETY

Gulf Construction Est. (GCE) motor vehicles are in safe operating conditions with valid motor vehicle periodic inspection and shall not be operated with defected brakes or control. GCE must at all times obey all posted traffic control signs and warnings. GCE workers/passengers are to board on vehicles designed for personnel transport. GCE shall abide to all vehicular safety standards.

9.0 HOUSEKEEPING

Gulf Construction Est. (GCE) shall at all times keep the jobsite and adjoining premises, driveways and walkways clean and free from accumulated debris, trash and rubbish. GCE must employ workers assigned to maintain housekeeping in a daily basis. Improper and untidy stocking and storage of materials is a major hazard and

must not occur. At the conclusion of the job, GCE is responsible to remove all remaining materials, supplies, trash and leave the area safe, clean and ready to use.

GENERAL

Housekeeping plays an important role in assessing site safety performance on the project. It usually included as a separate section in the quarterly audits conducted by an Owner and it is also an incentive award category of the Safety Incentive Plan. Special attention must be given to housekeeping.

- During the course of construction, all debris and scrap material shall be kept away from the work area. Work areas shall be cleaned at the end of the day.
- Weekly housekeeping assessments are made by the safety representative and corrective / actions are initiated and the records are submitted to the project safety coordinator.
- Containers shall be provided for the collection and separation of waste, trash, oily and used rags and other refuse. Metal (Dumpster type) containers must be used and emptied promptly (CLIENT requirements will be adhered to).
- Garbage and other waste shall be disposed of at frequent and regular intervals in a manner approved by CLIENT.
- GCE shall notify CLIENT of any hazardous waste it will generate during performance of the Work. Site Management has the direct responsibility of maintaining proper storage of these wastes while on site.
- GCE shall not pour, bury, burn, nor in any way dispose of a chemical on the work jobsite.
- GCE shall clear all combustible debris to a solid waste disposal site properly licensed by the Royal Commission or as CLIENT requirements. No open burning of debris or rubbish will be permitted at the project jobsite.
- Materials and supplies shall be stored in locations, which will not block access-ways, and arranged to permit easy cleaning of the area. In areas where equipment might drip oil or cause other damage to the floor surface, a protective cover of heavy gauge, flame resistant oil-proof sheeting shall be

provided between the equipment and the floor surface sheeting so that no oil or grease contacts the concrete. This requirement is applicable to both finished and unfinished floors.

- All hoses, cables, extension cords, and similar materials shall be located, arranged, and grouped so that they will not block any access-way and will permit easy cleaning and maintenance.

MATERIAL STOCKING

All material should be piled in the place set-aside for it and choked or tied to prevent rolling or falling. Each kind of material has its own characteristic.

Before stacking or piling material, you have to consider how the material will be taken out of the pile. If it's going to be a fast moving operation with a big tonnage being unloaded in a short time, be sure to leave space for workers and the equipment that will have to do the work.

Be courteous. Never pile material in such a way that it will endanger anyone who has to work on it or will make a backbreaking job for the worker who breaks down the pile. Other issues to consider are:

- The strength of the support if you're piling material on a floor or platform.
- The stability of the ground if you're piling a heavy load.
- The height of the pile so it won't topple.
- The need for building racks if it's pipe or rods you have to stack.
- The wisdom of waiting for the proper equipment to handle structural steel and other heavy material.

ACCESS

- Walkways and stairways must be clear, ladders must not be blocked, and emergency exits must not be blocked, and emergency exits must be identified and clear.

- Do not block any emergency equipment or electric disconnect switch/box.
- Stack, store, or spot material so that it can be reached readily by workers and material-handling equipment.

NOTE! In general, all trash, waste, and scrap must be placed in properly placed trash cans and routes leading to and from all work locations must be free and clear of obstructions and well lighted.

10.0 SCAFFOLDINGS

This procedure provides guidance to GCE Site Management for the protection of personnel engaged in scaffold operations on the CLIENT project. GCE site management and supervision shall ensure all scaffolding work is performed on an approved CLIENT Elevated Work Permit. All scaffolds of 12 meter and higher shall have an approved engineer design attached to the permit or as per CLIENT procedure.

GCE site management shall ensure all scaffolding are safe, inspected weekly by a competent person and that the scaffolds are properly tagged and shall not allow any person to use a scaffold that is not inspected and certified to be safe or that does not comply with the requirements of CLIENT procedure.

GCE shall employ competent scaffold erectors to erect independent scaffolds and competent scaffold inspectors to oversee overall scaffolding work. A scaffolding engineer shall be responsible for the design and approval of all specialty scaffolds and scaffolds above 12 meters in height and the inspection thereof.

Training records shall be made available to the GCE management and maintained by the GCE safety representative.

SCAFFOLD USE

- Scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities, whichever is less.
- Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each use and after any occurrence which could

affect a scaffold's structural integrity. When inspections are conducted on scaffolds, a tagging system shall be utilized.

- Any part of a scaffold damaged or weakened so that its strength is less than that required by this standard shall be immediately repaired or replaced, braced to meet those provisions, or removed from service until repaired.
- Scaffolds shall not be moved horizontally while employees are on them.
- Scaffolds shall be erected, moved, dismantled, or altered only under the GCE supervision and direction of a competent person qualified in scaffold erection, moving, dismantling, or alteration. Only GCE experienced and trained employees selected for such work by the competent person shall perform such activities.
- Employees shall be prohibited from working on scaffolds with slippery material except as necessary for removal of such materials.
- Where swinging loads are being hoisted onto or near scaffolds such that the loads might contact the scaffold, non-conductive tag lines or equivalent measures shall be used to control the loads.
- Work on or from scaffolds is prohibited during storms or high winds unless a competent person has determined that it is safe for employees to be on the scaffold and those employees are protected by a personal fall arrest system or windscreens. Windscreens shall not be used unless the scaffold is secured against the anticipated wind forces imposed.
- Debris shall not be allowed to accumulate on platforms.
- Makeshift work platforms such as, but not limited to, boxes and barrels, shall not be used on top of scaffold platforms to increase the work height level of employees.
- Ladders shall not be used on scaffolds to increase the working level height of employees, except on large area scaffolds where employees have satisfied the following criteria:

- When the ladder is placed against a structure, which is not part of the scaffold, the scaffold shall be secured against the sideways thrust exerted by the ladder.
- The platform units shall be secured to the scaffold to prevent their movement.
- The ladder legs shall be on the same platform or other means shall be provided to stabilize the ladder against unequal platform deflection.
- The ladder legs shall be secured to prevent them from slipping or being pushed off the platform.
- The platform shall not deflect more than one sixtieth (1/60) of the span when loaded.

FALL PROTECTION

- Each GCE employee on a scaffold 1.8 meters (6 feet) or more above a lower level shall be protected from falling to that lower level.
- GCE shall have a competent person determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds. GCE shall provide fall protection for employees erecting or dismantling supported scaffolds where the installation and use of such protection is feasible and does not create a greater hazard.
- Personal fall arrest systems used on scaffolds shall be attached by a lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member.

FALLING OBJECT PROTECTION

- In addition to wearing hard-hats, each employee on a scaffold shall be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toe-boards, screens, or guardrails systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.

- Where there is danger of tools, material, or equipment falling from a scaffold and striking employees below, the following provisions apply:
 - The area below the scaffold where objects can fall shall be barricaded, and employees shall not be permitted to enter the hazard area.
 - A toe-board shall be erected along the edge of the platforms, more than 1.8 meters (6 feet) above lower levels, for a distance sufficient to protect employees below.
 - Where tools, materials, or equipment are piled to a height higher than the top edge of the toe-board, paneling, or screening extending from the toe-board or platform to the top of the guardrail shall be erected for a distance sufficient to protect employees below.
 - A guardrail system with openings small enough to prevent passage of potential falling objects shall be erected over the employees below.

SCAFFOLD INSPECTION – TAGGING & Recordkeeping

GCE shall maintain a log and record all scaffolds and inspections. GCE shall make inspection records available to CLIENT upon request.

- GCE qualified scaffold inspector shall inspect the scaffold or work platforms to assure that all applicable safety measures such as handrails, toe-boards, ladders, etc., have been provided.
- All scaffolds shall be inspected at least weekly.
- The scaffold inspection tag shall show the GCE name, scaffold number, the area, type of scaffold, inspector's name, date of inspection and signature.
- Scaffolds shall be RED tagged "DO NOT USE" while being erected.
- Scaffolds that are not safe for use are to be tagged at a visible location with a "UNSAFE FOR USE" tag.
- In the event a scaffold or platform cannot be erected in accordance with the applicable codes and standards, i.e., handrails or equivalent fall protection, a

YELLOW tag is to be utilized. This YELLOW tag will have a warning message, "SAFETY HARNESSSES SHALL BE WORN, 100% tie off".

- Employees observed working on a YELLOW tagged scaffold who are not using safety harnesses are subject to disciplinary action.
- The responsible foreman will place a GREEN "SAFE FOR USE" tag on all scaffoldings meeting SADAF or equivalent Scaffolding standards and requirements. This tag is to be attached at some point near the access ladder where it is visible to anyone climbing the ladder. This tag is also to be signed and dated by the responsible foreman.
- Alterations or modifications, which must be made to a Green tagged scaffold, are to be re-inspected and re-tagged by the foreman who is responsible for the modification. A new tag is to be placed on the scaffold or platform.
- Employees are not permitted to work on a RED tagged scaffold. Any scaffold that is not tagged, regardless of reason, shall be assumed to be "UNSAFE FOR USE."
- Scaffold are to be numbered for easy identification and its maintenance records.

11.0 FIRE PREVENTION

Fire prevention is an important part of accident prevention and it is Gulf Construction Est. (GCE) safety standards to prevent or eradicate possible fire related explosions. Fire extinguishers must be available within easy reach of the workers at site. All flammable liquids may only be kept in storage away from combustible materials. Proper storage of materials is the key in preventing any fire explosion. Smoking is prohibited except in a designated area only.

A clear access to all Fire Extinguisher / Equipment will be maintained. Extinguisher shall be located within 15 meters of any point on the perimeter of material stored in fuel or combustible materials storage area. Additionally, these areas shall be identified with signs restricting vehicle access and prohibiting fire ignition sources and smoking.

Fire protection equipment will be provided in all areas where combustible materials are present. Regular inspections will be made by the safety department to assure the Fire Extinguishers are ready for use. All Fire prevention / Fire Fighting equipment shall be inspected monthly to ensure they are in a good working order and replaced if faulty. Records and inspections shall be maintained.

The fire-watch personnel will be properly trained and equipped with the proper fire-fighting equipment. The fire watch will be responsible to watch for fires, prevent fires, put fires out, and give the alarm. Each fire watches person will be responsible for a maximum area described by an Eight meter Circle on a horizontal plane. All open flame operations will be within the responsibility area of a Fire-Watch. Fire Watchers will wear an orange reflective vest for easy identification.

12.0 BARRICADES / WARNING TAPE /SIGNS

This procedure outlines the barricading requirements that shall be followed on the project. Barricade will generally not be accepted as the primary means of barricading off a hazard and may only be used as described within this procedure. Physical hard barriers will be used as the primary means to barricade hazards and hazardous work areas.

PHYSICAL BARRIERS

Physical barriers will be erected to provide protection against hazards and dangers, hazardous work areas and hazardous work in all cases where the hazard or danger will exist for a period longer than 8 hours. Barricade tape will be used to wrap around the physical barrier or in conjunction with the physical barrier to provide additional warning of the hazards or danger that exist and/or to increase the visibility of the barrier.

- Barriers will be constructed of material of substantial strength.
- Barricades shall be visible at all times where a hazard or danger exists and additional signs may be required.
- All streets, roads, highways, and other public thoroughfares, construction roads which are closed to traffic shall be protected by effective barricades on

which shall be placed acceptable and *highly visible* warning signs. Barricades shall be located at the nearest intersecting, highway, street or road on each side of the blocked section.

- All floor openings, open trenches and other excavations shall be provided with suitable floor opening covers, barriers, signs and lights to the extent that adequate protection is provided to the employees and public. Obstructions such as material piles and equipment shall be provided with similar warning signs and lights.
- All barricades and obstructions shall be illuminated by means of warning lights from sunset to sunrise if within a public thoroughfare, road or potential obstruction to other contractors or operations.
- Materials stored upon or alongside construction roads and public streets and highways shall be so placed, and the work at all times shall be so conducted as to cause the minimum obstruction and inconvenience to the traffic.
- All barricades, signs, lights and other protective devices shall be installed and maintained.
- Signs, signals and barricades shall be removed when the hazard no longer exists.

BARRICADE WARNINGTAPE

- Types of barricade tape will be utilized on this project as a visual warning for employees. Barricade tape does not offer physical protection for floor edges, roof edges, floor openings, trenches, excavations, etc., and shall not be used for physical protection.
- Barricade tape will be used with physical barriers to increase the visibility of the barrier and to indicate the type of hazard that exist. Barricade tape may also be used to rope off low risk hazards that will not take longer than 8 hours to remove all hazards and make the area safe.
- Other exceptions are where barricade tape may be used is where people are stationed outside the hazardous work area to help control accidental entrance

into that area while performing short duration work. Examples are: where a crane lift is being performed or where a truck is being off-loaded.

BARRICADE ERECTION

Each supervisor / foreman performing work that requires barricades and tape to be erected shall:

- Erect the barrier and install the tape to enclose the specific area to be protected only. Do not block passageways or access ways unless entirely necessary. If passageways or access ways must be blocked, contact your general foreman for coordination with other crafts and/or possible alternatives.
- Erect barriers and install tape in a secure and neat manner that will maintain a height of between 1 meter and 1.2 meter (40" and 45") from the floor or ground surface. A second bar and strand of tape shall be placed half the distance between the top and the ground.
- The only employees allowed to enter a RED barricade area will be that craft assigned to tasks by that supervisor / foreman responsible for the work area and the barricade.

INSPECTION

All barriers will be inspected daily by the Safety Representative and the responsible supervisor to ensure they are in a good state of repair. The supervisor shall repair all defects immediately.

13.0 HOT WORKS/ WELDING WORKS

Gulf Construction Est. (GCE) must ensure that all hot works complies with all the required safety standards set by CLIENT. Prior to commencing of work, secure first the hot work permit. Hot work permit must be obtained and all stipulated

requirements totally complied with and verified by the concerned permit receiver (the supervisor) prior to performing any welding, cutting or grinding work.

It is the immediate responsibility of the responsible permit receiver, to see to it that all stipulated conditions and requirements on the permit are enforced throughout the course of activity. All welding, cutting and grinding works shall be performed in full compliance with the requirements cited in all applicable procedures of Client. GCE will employ certified welders and used approved and in good working conditions welding machines and other hot work related tools/equipments. Only qualified competent welders will be allowed to perform welding work on the project. Appropriate Personal Protective Equipment (PPE) such as welding shield cutting goggles, helmets, flame resistant gloves / aprons, leggings, wind screens / personnel protective barrier, forced air ventilation (where required) and similar equipment will be provided to welders and affected personnel in the immediate area.

Operators of equipment should report any equipment defect or safety hazards and discontinue use of equipment until necessary repairs have been made. Only qualified personnel shall make repairs.

Areas where welding or burning operation occur must be protected to prevent the ignition source from generating a fire. GCE shall insure that the following are complied with:

- Provide fire watch and ensure he is trained competent.
- All flammable and combustible fuels are removed/isolated from the hot work area.
- Fire blankets are readily available to contain sparks and slags.
- Provide proper welding screens or barriers to protect others from the arc (flash burn).
- No welding or burning is to be done on a closed vessel or tank, or any vessel or tank that has not been decontaminated. (This includes drums, barrels, etc.)

- Fire extinguisher must be within 6.0 meters (20 feet) of any welding, burning or flame work.
- Inspect all leads, grounds, clamps, welding machine hoses, gauges, torches and cylinders each day before use.
- Welding machine shall not be operated above the electrical current rating.
- Welding current shall be returned to the welding machine by a single cable extending from the weld piece to the welding machine.
- All hot work equipment must be inspected by a competent inspector, and must bear the current color code.

NOTE! Protective clothing shall be worn for welding and burning whenever work is performed such as: fire resistant clothing; flameproof gloves; flameproof leather or suitable material, aprons shall be considered if long-term exposure to radiant heat or sparks is anticipated.

14.0 COMPRESSED AIR/GASES

Gulf Construction Est. (GCE) must set the standards to all works related to compressed air/gases. Compressor/ventilator must be used at all times if work conditions involved in a compressed air. Watchman must be maintained in a position whenever the compressor is running. The oil feed to the airline must be regularly filled. Air receivers must be marked with safe working pressures. GCE will make sure the watchman knows the safety procedure and be replaced only if he has a reliever.

All GCE employees shall insure that the following are carried out:

- Before connecting regulators to cylinders, carefully open the cylinder valve a crack to blow out any foreign particles. After the regulator is connected, stand to one side of gauge while the cylinder valve is opened. Open the cylinder valve slowly. Be certain that the second stage of the regulator is closed before opening the cylinder valve.
- Open valves on fuel gas cylinders (propane, acetylene, natural gas) a quarter turn only. Open oxygen cylinder valves completely. The valve wrench must be kept in place during use.

- Do not exceed 15 psi on the torch side of the gauge when using acetylene.
- When lighting a torch, open the fuel gas valve on the torch before opening the oxygen valve. Use an approved spark lighter.
- All compressed gas cylinders should be kept in bottle-carts (trolleys) when transported or in use.
- All burning rigs must be broken down at the end of the shift, with regulators removed and protective caps secured.
- Compressed-gas cylinders must be secured by a chain in a vertical position while in storage, transit or use.
- Keep oil and grease away from oxygen-regulator hose and fittings. Do not store wrenches, dies, cutters or other grease-covered tools in the same compartment with oxygen equipment.
- Do not use compressed gas to clean your clothing, blow out anchor holes, or otherwise clean your work area.
- All hoses, gauges and torches must be inspected regularly.
- Approved burning goggles must be worn. Use at least No. 4 filter with a safety lens on both sides of the filter.
- Never leave a torch in a vessel, tank or other closed container because of the potential hazard of leakage.
- Never use oxygen in pneumatic tools to pressurize a container, to blow out lines, or as a substitute for compressed air or other gases.
- Place cylinders and hoses where they are not exposed to sparks and slag from a burning operation.

Note! All Oxygen and Gas cylinders shall be handled with care: lift to upper levels with approved cages only; do not strike an arc on cylinders; do not use cylinders as rollers; do not lift with slings or by the protective cap; anti-flashback arrestors shall be installed on the regulator end of the hoses and a check valve at the torch end of the hoses on all fuel gas and oxygen cylinders. Some regulators may be designed

with an anti-flash arrestor built into the regulators and may only be used upon approval of the GCE Safety Department and CLIENT.

RESPIRATORY PROTECTION

Proper ventilation and / or respiratory protection shall provided whenever there is the potential for the buildup of hazardous fumes or vapors generated from burning, cutting or welding of lead base metals, exotic metals such as zinc, cadmium, mercury, beryllium or exotic paints.

Hot Work involving exotic metals and or paints to be performed inside confined space requires the approval of GCE Project Manager and CLIENT.

15.0 TRAFFIC SIGNS

Gulf Construction Est. (GCE) will use traffic signs and warnings adjoining the project sites and at the project site itself if deem necessarily and must employ traffic scheme for rerouting if necessary with the GCE traffic aides to monitor and maintain the flow of traffic. GCE will employ traffic man or flagman to ensure the smooth flow of the traffic inside and outside the working areas.

Traffic regulations

- All posted traffic control signs and warnings must be obeyed.
- The driver of the vehicle is responsible to prohibit any passengers from riding on running boards, fenders, bumpers, hoods (bonnets) and tops of vehicles.
- Contractor shall not block any street, roadway, emergency vehicle, or emergency exit without permission from CLIENT.
- Vehicles full stoppage must occur when approaching a stop sign.

16.0 SAFE WALKWAYS

Gulf Construction Est. (GCE) will maintain safe walkways inside the project site and its premises and to its adjoining perimeter to ensure the safety of the workers, inspectors, visitors and the pedestrians. GCE will use temporary walkways made of wood planks such as ladder or pathways for access to the working areas for

inspection. Temporary shade or covered pathways must be made to areas where many passersby or pedestrian crossing the areas.

17.0 WASTE DISPOSAL

Gulf Construction Est. (GCE) employs waste management on site as per CLIENT/Royal Commission procedure. Waste especially fragments, sharp objects and oil rags etc. must only be placed in receptacles provided. Poisonous and dangerous liquids must never be placed in drinking cans or bottles or any other receptacles used to hold foods or drinks. Scrap materials must be placed in the skips provided and not to allow accumulating. Spillage of oil, etc. must be cleaned up and made safe as soon as it occur. Work areas must not become littered with tools, materials or scrap. GCE will supply a dump truck to transport these waste materials from the site to the dumping areas designated by the authority.

18.0 MANUAL HANDLING/LIFTING

Gulf Construction Est. (GCE) in manual handling/lifting uses the right techniques in lifting. When moving things from high places, use a stool or platform, push the load to check how heavy and stable it is, see if u can break the load into smaller pieces. Get the help of others if you think you might need it, slide it down. For a two-person lift, work with someone about your height, have one person say when to lift and move.

All employees who move or lift heavy objects must be trained in safe lifting procedures

Using the following personal protective equipment prevents needless injuries when manually moving materials:

- Hand and forearm protection, such as gloves, for loads with sharp or rough edges.
- Eye protection.
- Steel-toed safety shoes or boots, with soles that are not overly worn to prevent slipping.

- Metal, fiber, or plastic metatarsal guards to protect the instep area from impact or compression.

To minimize the likelihood of a back injury when lifting materials, the following steps should be taken:

- Plan ahead before lifting - know what you're doing and where you're going to help prevent you from making awkward movements or turning awkwardly while holding heavy object. Clear a path, and if lifting something with another person, make sure both of you agree on the plan.
- Stand Close to the Load - stand close to the load with your feet spread apart about shoulder width. Place one foot slightly in front of the other for balance.
- Bend at the Knees - squat down bending at the knees (not your waist). Tuck your chin while keeping your back as vertical as possible.
- Control the Load - get a firm grasp of the object before beginning the lift.
- Lift with Your Legs - begin slowly lifting with your LEGS by straightening them. Never twist your body during this step.
- Keep Load Close to Body - once the lift is complete, keep the object as close to the body as possible. As the load's center of gravity moves away from the body, there is a dramatic increase in stress to the lumbar region of the back.
- If you must turn while carrying the load, turn using your feet-not your torso. Keep your eyes up. Looking slightly upwards will help you maintain a better position of the spine.

Note: If the load is heavy, do not turn or pivot on one leg as this type of motion can cause knee injury.

- When moving an item from a hard-to-reach place, position yourself as close to the item as possible.
- Slide it out to get it closer and be sure that you have adequate room for your hands and arms.

- Be aware of adjacent obstructions, on either side or above the load. If an object is too heavy, or awkward in shape, make sure you have someone around who can help you lift.
- To place the object below the level of your waist, follow the same procedures in reverse order.
- Remember, keep your back as vertical as possible and bend at the knees.
- Think about where the item will be placed once you've lifted it: Will it be: overhead; under an overhang; in a narrow spot
- Check your path from place to place - remove tripping hazards, protect openings, set up a "well wheel" or a "bucket and line" if you need to get materials up a ladder.
- Make sure that the lighting is sufficient to see where you are going.
- Stabilize uneven or loose ground, or choose an alternate route.
- The shortest way isn't always the fastest, or the safest.

19.0 EMERGENCY RESPONSE PLAN

GCE will prepare specific instructions for any emergency. Interface and communication between CLIENT and GCE facilities will be specified. Any shared responsibilities shall be clearly identified. Alternate plans shall be made for unforeseen conditions, for example changes in wind direction.

GCE will share information with CLIENT on scenarios that could affect all employees.

GCE shall identify and evaluate the capabilities and resources needed for an effective emergency response, such as the following:

- On-site equipment, both primary and back-up.
- On-site personnel availability and capability.
- Training needs for emergency response personnel i.e., the ERT.
- Two-Way communications equipment, both primary and back-up.
- Availability of utilities.
- Off-site response resources.

- Outside agencies.
- Wind direction indicators i.e., wind socks.
- Evacuation and head count for all persons.
- Emergency Operation Center (EOC)

GCE shall provide instructions, verbally, by training, use of signboards etc to all employees on the action to take on identifying a potential emergency situation. The notification of an emergency shall include:-

- Activate the manual alarm station if available or use telephone or radio.
- By telephone dial the required CLIENT emergency number, if available.
- State name, badge number and location telephone number.
- Explain the nature of the emergency i.e., fire/explosion/injury/other
- Give the exact location i.e., building and entrance of the incident.
- If applicable and possible, render first aid to injured personnel.
- If applicable and safe to do so, use the nearest fire extinguisher.

GCE Security upon receiving an emergency alarm shall, either automatically or via telephone do the following:

- Notify the GCE Safety Department and Clinic.
- Provide details of the location of and type of emergency.
- Maintain radio contact with the responders to the emergency, noting down all information in the duty log book.

Upon being notified of an emergency, the Project Manager will contact the General Manager who shall make the decision whether to activate an orderly evacuation of the site. All Emergency response equipment shall be maintained in a Ready for Use condition at all times.

GCE will conduct a major response drill at least once a year. This drill shall address all aspects of the Emergency Response Plan as appropriate to the drill scenario. Each

drill shall be critiqued for lessons learned. Recommendations generated for each drill shall be addressed, resolved and documented.

EVACUATION PLANS

- Provide the information necessary to determine when a localized or complete site evacuation occurs and how the evacuation is to be accomplished.
- The individuals who have the authority to order the evacuation shall be identified.
- Other protective actions, such as sheltering in place, should be identified.
- System to differentiate between areas of evacuation.
- Maps showing primary and alternate evacuation routes.
- Maps of primary and alternate assembly areas, including off-site.
- Responsibilities of designated employees during an evacuation.

20.0 SECURITY PLAN

GCE shall provide security at access points to the CLIENT project in accordance with security procedures of Chevron CLIENT. The site shall be secured with a fence with security controlled access gates. Two-man shifting day and night will be employed to guard the facility and its properties/equipments. The watchman will be provided with communication and information regarding the proper procedure and with contact to the GCE management if problems arise.

The site security procedure requires a project ID badge for all employees working on the CLIENT project. Materials entry and exit, vehicle passes for vehicles transporting employees on site, and mobile equipment to enter and exit the site to be ruled by CLIENT Security procedure.

In case of any security emergencies, GCE has to inform CLIENT Security Control Room (SCR).

21.0 RECOGNITION/INCENTIVE PROGRAM

GCE has provided this program to maintain the mechanism of the rewarding and recognition in the company in order to have effective system to recognize the employee's performance.

GCE will ensure the program is applied effectively throughout the CLIENT project and responsible of all the categories in the system.

s/n	Category	Frequency	Process	Responsibility
1	Best safe foreman	Monthly	Certificate to be presented at the end of the month	Project Manager
2	Best safe employee	Monthly	Certificate to be presented at the end of the month	Project Manager
3	Recognizing individuals/teams completing their assignments in Special Tasks, Projects, Committees.	Occasionally	Recognition in the Staff meeting by the Project Manager	General Manager

23.0 MEDICAL REQUIREMENTS

Gulf Construction Est. will provide a competent first aid personnel in the CLIENT site.

GCE will provide a first aid clinic together with a first aider personnel to do first aide measures GCE will make sure that the first aider has a complete medical needs in carrying out medical attention to any emergencies.

Every accident must be reported to the immediate supervisor or safety representative at the site for proper medical attention.