HSES

PROCEDURES

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INTRODUCTION

Employee health and safety is given top priority on all Al Rawasi Qatar managed worksites. Your employer is responsible for providing you a safe place to work in accordance with government and local regulations. However, Al Rawasi Qatar is a concerned quality company and as a contractor/subcontractor employee, your safety is equally important to Al Rawasi Qatar Company.

The success of this project's safety program rests in the firm commitment of all members of the working plan and practice safety. Every manager and supervisor is responsible for the observance of all government, client and project guidelines governing safety in the workplace. They must accept the responsibility and be held accountable for the safety of every employee under their direction. Each employee is accountable for his/her own actions and must observe the safety rules and instructions applicable to the workplace. All unsafe acts or condition are to be reported promptly to your immediate supervisor.

A safe place to work is the goal of everyone. Through everyone's efforts we constantly strive to improve safety techniques and reduce hazards.

You are urged to do your part in making the workplace a safe area for yourself and others. The overall safety program can be improved by properly using the safety equipment provided by avoiding unsafe practices and acts, and by cooperating with your supervisor and by following these safety guidelines

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SAFETY TECHNIQUES

GENERAL

Experience has proven that the following "safety tools", thoughtfully applied by supervisors and employee alike, contribute dramatically to an injury-free workplace.

This section instructs you in the proper use of these tools.

Safety instructions

No job is to start until you get a complete Safety Task Assignment (STA) from your supervisor.

Mental Distractions

Mind in one place and body in another spells danger. If you have a personal situation persistently bothering you, tell your supervisor.

Meetings

Periodic safety Toolbox meetings will be held at each project. The purpose of this meeting is to place accident prevention foremost in the mind of each individual and to acquaint you and others with the necessary overall prevention action.

Inspections

Each supervisor and each employee should make a quick check on the areas at the start of the shift each day to ensure safe working conditions – condition of shoring, access, power equipment moving in, new excavation, occupancy with other groups, workers moving in overhead, or any other changing conditions.

SAFETY TASK ASSIGNMENTS (STA)

This procedure provides guidelines for all super visors who assign work to employees. Additionally, it takes into consideration all aspects of the task to be performed with emphasis on safety.

General

- Safety task assignment (STA) is showing or explaining to each employee the safety application that pertains to the job he or she is to do.
- It is the responsibility of management down through foreman to give STA assignments to all employees, either individual or in a group before they actually begin any assigned task. The STA may only require a few words, but in many cases, it could require an actual demonstration of how the job can be done safely while pointing out any hazards that may be encountered in any task.
- Supervisors can manage their business safely by assuring that every employee understands thoroughly every STA given to him/her on every job that he/she is to perform.

Procedure

- Each foreman must analyze each job or task for specifics hazards before work begins. This will enable him to give accurate instructions for each job that his employees will be engaged in during that work shift. **The job safety analysis of the work will be used as guide to filling out the STA.**
- The magnitude of the task will generally determine the extent of the STA. Some task will require only a few words of STA and others may take a more detailed explanation or other preparation for employees. All employees involved must be checked to ensure that they understand what they are expected to do to safely perform their task.
- Each foreman is responsible for giving STA's every day to their work crew. The STA should include any specific hazard that group may encounter, safety equipment, and any personnel protective devices that may be needed.

- Each foreman will assign each employee to be alert to a designated hazard that may be encountered during the course of their work activities. These employees will report any hazard observed to the foreman for correction.

    - ❖ It is the responsibility of the foreman to initiate corrective action to the greatest degree necessary to achieve abatement of the hazard following notification by his employee.

- The STA Roster (Exhibit A) should be placed in a conspicuous place near the work area. This will enable the employee to review the STA during the course of the day.

    - ❖ The STA roster should be turned in at the end of each shift, so it can be reviewed by the area superintendent of each subcontractor on the Al Rawasi Qatar.

HOUSEKEEPING

Orderliness

If you keep area neat, it encourages safe work habits. Major orderliness considerations are as follows:

- Keep tools and working materials in proper containers.
- Store trash, waste and craps in correct containers.
- Store materials safely.
- Put cigarettes stubs in butt cans.
- Keep small items in boxes or bins.
- Keep the floor clear of tools, rod ends and metal shavings.
- Keep walkway clear.
- Ensure that worktables are occupied only by work at hand and tools required for work being done.
- Store or contain materials so that fire has no place to start.
- Clean up tools and work areas as your job progresses.
- Keep cords and hoses seven feet overhead or lay them flat outside walkways.
- Keep all materials, tools, and equipment in a stable position (tied, stacked or chocked) to prevent rolling or falling.
- Maintain clear access to all work areas.
- Keep stairway clear of debris.

Trash, Waste, and Scrap Disposal

All trash, waste and scrap (such as trash, scrap metal, oily rags, broken glass, aerosol cans) must be placed in properly identified containers.

Access

Routes leading to and all work location must be free and clear of obstructions, and well lighted except in special instances approved by tank work or restricted access permits.

Walkways and stairways must be clear, ladders must not be blocked, and emergency exits must be identified and clear.
Check with your supervisors about route and access to be used in and out of excavations, roofs, equipment areas, buildings, process areas, etc.

Do not block any emergency equipment or electric disconnect switch.

Stack, store or spot material so that it can be reached readily by workers and material-handling equipment.

Slips/trips

- Practice safe walking skills, particularly in congested areas (shorter steps).
- Pay continuous attention to where you are stepping.
- Clean spills right away.
- Keep your hands free for balance.
- Walk at steady pace.
- Wear slip resistant shoes.
- Take walkways and access provided.
- Keep work areas well lit and clean.

MATERIAL HANDLING

By hand

- Consider your back.
- Lift with legs; keep back straight; do not use your back muscles.
- Use gloves when working in sharp and abrasive objects or when splinters are possible.
- Know the weight of the object to be handled. If weight is excessive or the size of the object is cumbersome, get help or consult your supervisor.

Mechanical Handling

- Get rigging instructions from your supervisor before beginning.
- Know the weight of the object to be handled.
- Know the capacity of the handling device (crane, forklift, chain fall, come-along) that you intend to use.
- Use tag lines to control the loads.

Material Preparation

- Clean up ragged metal edges.
- Pull all protruding nails and wires or bend them flush.
- Store on dunnage for ease of handling.

Stability Control – Men, Materials and Equipment

Ensure that your body, material, tools and equipment are safe from such unexpected movement as falling, slipping, rolling, tripping, blowing or any other uncontrolled motion.

- Use safety harness as required.
- Protect the area below you.

- Salt or sand icy walk areas immediately.
- Put absorbent on all grease and oil spills immediately, and then clean up.
- Trucks (i.e., flat beds) hauling equipment or materials must not be moved once rigging has been released.
- Chock all material and equipment (Such as pipes, drums, tanks, reels, trailers and wagons) as necessary to prevent rolling.
- Tie down all light, large-surface-area material that be moved by the wind.
- When working at heights, secure tools, equipment and wrenches against falling.
- Do not store materials or tools on grits, ducks, lighting fixtures, beam flanges, hung ceilings, or similar elevated locations.

Rigging

- Know the proper used of chain falls; come-along, chocker, shackles and clamps.
- Never raised a load over people.
- Use tag lines to control the loads.
- Know the capacity of rigging equipment and weights of load.

Miscellaneous Tools and Equipment

Hooks, Shackles, Beam Clamps, and Chokers

- **Only ONE eye in a hook. Use a shackle to hold two or more eyes.**
- All hooks must have a safety latch or be moused (steel erection and shake-out hooks are exception).
- Always place a load in the center of a hook and never in the point.
- Get approval from your supervisor before rigging from any structural member to ensure that it will support the load being raised.
- Never used plate grips, tongs, pipe clamps, etc., as substitutes for beam clamps.
- Hook, shackle and beam clamps should be inspected before use. Do not exceed the capacity marked on the equipment.

Chain Falls and hoist

- A chain hoist must be used within its rated capacity.
- Make sure that the capacity is marked on the equipment.
- Chain hoist are designed so that one person can operate the hand chain to lift the maximum load for the chain hoist.
- Do not leave an unsecured or unattended load hanging on a hoist or a chain fall.
- Do not stand or have any part of the body below a load suspended on a chain hoist.
- Do not wrap the load chain around the load to be lifted.
- Every chain hoist should be inspected before making a lift. Your visual check should include the hooks for any irregularities, the chain for wear or damage, and the housing and sheaves for any signs of damage from abusive treatment.
- Use softeners, where possible, to obtain a "bite" on material being rigged.

Rope

- Wire: Inspected for frays, kinks, broken wires, and worn spots before using.
- Fiber: Inspect for excessive broken fibers, wear and deteriorated inner and outer strands before using.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective equipment

- A hard hat must be worn at all times.
- Approved safety glasses, with side shields, must be worn by employees during work hours in the worksite (except in the office areas).
- Safety shoes should be used when the potential of serious foot injuries exists.
- A safety harness with lanyard must be worn and used in elevated areas six feet or more when not protected from falls; in precarious situations where fall protection is not provided.
- Respirators and rubber gloves may be required for special jobs.
- Gloves are needed on most jobs.
- Hearing protection is required for many jobs and in designated areas.

Clothing

All clothing worn must comply with general work and safety practices. Do not wear clothing that could get caught in machinery or otherwise cause an accident (e.g. dragging pants, baggy shirts, torn or loosed long sleeves, torn clothing). Shirts with sleeves and long pants must be worn at all times.

Head

Approved hard hat with the company logo attached must be worn at all times when entering any work area with the exception of offices, equipment of fully enclosed cabs, lunch and breaks periods, provide no work is going on in the vicinity, and when riding in enclosed vehicles. Note that you must not alter the design, surface or suspension of a hard hat.

Eyes and Ears

Eye protection

Approved safety glasses with side shields must be worn by all employees during work hours in all work areas except offices. Additional eye and/or face protection such as goggles, face shields and welding shields are required at all times when engaged in operation such as welding; burning; grinding; chipping; handling chemicals, corrosive liquids, or molten materials; drilling, driving nails, and pouring concrete.

Visitor's goggles are required for all visitors unless they are wearing approved safety glasses.

Employees engaged in welding must use filter lenses or less of not less than No.10 shade. Employees engaged in helping welders should not look directly at welding process and must use approved eye protection.

Burning goggles with minimum No.4 density and plastic cover plates on both sides of the filter lens are required for all gas welding and burning.

Employees engaged in operations using lasers will use lasers safety goggles suitable for the density of the laser being used. Such goggles will be marked showing the visible light transmission, and their optical density.

Precautions

- Know the locations of eyewash stations (chemical or industrial plants, refineries, etc.)
- Flood eyes with water if contact with chemical matter is suspected.
- Report all incidents to your supervisor.
- Do not try to remove foreign matter yourself.
- Keep hands away from your eyes.

Ears

Approved hearing protection must be worn as specified in all posted areas and while working with or around high-noise-level producing machines, tools, or equipments.

Face and Necks

Face shields must be worn under the following circumstances:

- Working with tar pots.
- Working with molten leads and acids.
- Performing grinding operations.
- Using power saws and other tools/equipment that discharge solid material.

Welding can cause arc burns. Keep your neck and face suitably protected.

Loose neckties, jewelries, or frayed shirts are not to be worn around machinery.

Finger, Hands and Wrists

Gloves

Suitable gloves should be worn when handling materials and equipment.

- Plastic or rubber-coated gloves are to be used for special types of works (e.g. solvents, chemically treated material).
- Dielectrically tested rubber gloves are to be used on all power-line work and where there is a possible contact with energized circuits (e.g. concrete breaking, drilling and excavating). Always inspect before using. Check with your supervisor for proper storage.

Tool holders

Use tool holders when driving stakes or wedges or when holding star drills, and similar driven tools.

Tag Lines

Tag lines are used to control loads and to keep individuals away on all lifts made by mechanical equipment – HANDS OFF LOAD!

Do not wrap tag lines around your hands or body.

Restrictions

Materials should be secured when using power tools. Do not depend on your ability to hold against a power of a machine.

Rings and other jewelry are discouraged in the project work areas and should be removed while using power tools.

Abdomen

A kickback apron is required while ripping material on radial arm saws, radial stable saws, and similar power machines.

Legs, Thighs, Knees, Shins and Ankles

General

- Pointed tools must be carried in pockets
- A canvass or leather tool sheath hung from the belt is acceptable. ALL POINTS DOWN.

Special Jobs

Shin guards, spats, etc. are to be considered when using some special equipment such as chainsaws or brush hooks and where snakes bites are possible.

Consider stability before stepping into spots where material could shift.

Feet and Toes

Substantial shoes or boots are required on all projects. You are encouraged to wear safety shoes or boots. They are required on many projects and by some states regulations.

Sneakers, sandals and or other shoes of this description are not to be worn at any time on the construction site. The wearing of low quarter shoes is discouraged.

Rubber boots with safety toe protection should be provided on jobs subject to chemically hazardous conditions.

Foot guards must be worn using jack hammer, tampers and similar equipment.

Safety Harness

Safety harness must be worn and tied off when working on the follwing:

- Sloping roofs.
- Flat roofs without handrails within six feet of the edge or roof opening.
- Any suspended platform or stage.
- Any scaffold with incomplete handrail or decking.
- Ladders near the edge of roofs and floor openings.
- In the area of roof or floor opening.
- In areas more than six feet above any adjacent working surface.
- When placing and tying reinforcing steel in walls, piers and columns.
- When removing floor planks from the last panel to a temporary floor.
- In areas exposed to protruding reinforcing steel.
- When assembling and disassembling scaffolding.

Safety harness must be arranged so that the support point is in the rear. Harness is not to be used for support or as a lineman's belt. Lanyard must be secured to a substantial overhead object capable of supporting 5,400 pounds dead weight. Maximum fall distance is six feet.

Respiratory (Breathing)

Appropriate respiratory will be provided by your employer and are to be used for protection against excessive concentration of dusts, mists, fumes or vapor and gases, or from oxygen deficiency.

Any employee whose job entails a reasonable expectation of having to wear respirator must maintain his face clean shaven in the seal area.

The appropriate respiratory protective devices will be provided for the hazardous material involved and the extent and nature of the work performed.

If you are required to use respiratory protective devices, make sure you have been fitted, tested and instructed in their use.

Make sure that all respiratory protective equipment is inspected regularly and is maintained in good condition. Respiratory equipment must be stored in a dust-proof container between uses.

TOOLS

General

- Only qualified persons are to use tools and equipment.
- Do not operate any tool without proper instructions.
- Some activities will require permits before starting work.
- Tools and equipment must be in good condition and maintained in such condition.
- Tools or guards are not to be altered.
- Tools are to be used only for their designed purpose.
- Personal tools are subject for inspection at any time.

Hand Tools

Every tool was designed to do a certain job, use a tool only for its intended purpose. Every tool needs care!

- Keep your hand tools in peak condition – sharp, clean, oiled, dressed and not abused.
- Worn tools are dangerous e.g., the "teeth" in a pipe wrench can if worn smooth , an adjustable wrench will slip if the jaws are sprung ; hammer heads can fly off loose handles.
- Tools subject to impact (chisels, star drills and caulking irons) tend to "mushroom." Keep them dressed to avoid flying spalls. Use tools holders.
- Don't force tools beyond their capacity.
- Don't use tools for pry bars.

Portable Power Tools

Restrictions

DO NOT operate without instructions from your supervisor. (Note: Some activities will require permits before starting work.)

Major Hazards

- Torque is the circular or rotating motion in tools such as drills, impact wrenches, and saws that results in a strong twisting force. Be prepared in case of jamming.
- Have good footing: use two hands help as assigned, and be ready to release the power switch or trigger (this should be fail-safe so that it can not be locked "on"). Watch for coasting or idling motion.
- Flying objects can result from operating almost any power tool, so you must always warn people around you and use proper eye protection.
- Contact with moving parts can be hazardous. Keep moving parts directed away from your body. Never touch a power part (e.g., drills, chucks, blades, and bits) unless the power source is disconnected.
- Beware of swinging around with the tool running; someone might be beside you.
- Tool condition should be monitored. Examine each power tool before using it. Look for damaged parts, loose fitting, and frayed or cut electric cords. Tag and return defective tools for repairs.
- Air must be shut off or the elect cord unplugged before making tool adjustments. Air must be 'bled down´ before replacement or disconnection.
- Consumable parts must meet specifications e.g., grinder wheels and metal bits must be approved for maximum rpm of the machine, etc.

Guarding

Proper guards or shields must be installed on power tools before issue. Do not use improper tools without guards in place. No "homemade" handles or extensions ("cheaters") are permitted.

Power Tools – Shop Type

Certain power machine are to be run only by authorized operators after proper training, along with a set of basic rules.

Adjustment, Servicing and Repairs

- Shutdown machine and take necessary action to prevent accidental starting. This may require a complete lock and tag procedure or simply unplugging the power cord.
- Replace all guards before start-up. Remove cranks, keys, or wrenches used in service work.

Operating Practices

- Loose clothing, rings and other jewelry must not be worn around operating machines. Keep sleeves but-toned or rolled up.
- Keep fingers away from moving parts. Shut off machines to remove waste. Use a brush to clean up or deburr. Be sure the machine is stop and not coasting.
- Inspect the least daily before start-up. Look for loose or damage parts, adequate lighting, lubrication, and abandoned tools or material that could "vibrate into trouble".
- Use clamps or vises to hold work wherever possible.
- Many machines have safety interlocking devices. Be sure they work, and NEVER BYPASS AN INTERLOCKING DEVICE.
- Some machines use both air and electric power. Both must be shut off to make repairs or adjust moving parts. Beware of air left in the systems – "bleed down".
- Fire hazards are constantly around us. Oil, rags and hot chips are fire hazards. Know where fire extinguishers are; keep the machines area clean.
- Clean the immediate work area of other craft workers and obstacles.

MOBILE EQUIPMENT

General

Your employer will provide you with equipment that is safe to use. You will be responsible for inspecting your equipment before each work shift. If the equipment becomes defective in any way, notify your supervisor at once and place a DEFECTIVE - DO NOT USE tags on it.

Know the limitations and specifications of the equipment you use. Do not exceed those limits. Do not use the equipment for other than its intended purpose.

No work must be done on equipment, belts, drives, conveyors or vehicles while they are in operation unless your employer has reviewed the plan and receive approval from Al Rawasi Qatar management. The equipment, belts, drives, conveyors or vehicles must be shutdown, locked and tagged, or otherwise immobilized.

Cranes

- All crane operators must be licensed per OSHA for each made and model crane operated.
- The operator must inspect his/her assigned machine before each work shift.
- The operator is solely responsible for the safe operation of his/her assigned machine.
- The operator has full responsibility for the safety of a lift and may not make a lift until safety is assured.
- A copy of the Manufacturer's Operator's Manual must be located at the project site and this manual reviewed by the crane operator and understood by him/her.
- The crane operator must understand and be able to determine the cranes capacity.
- A copy of the load chart must be in the crane cab whenever it is being operated.
- Accessible areas within the swing radius of the rotating superstructure counterweight of the carne must be barricaded to prevent employees from being struck or crashed by the counterweight.

- The load shall not be swung over other persons and no individuals shall position themselves under the load.
- Crane outriggers must be leveled and fully extended when making a lift.
- No part of the crane, load, hoist (load and boom) lines, boom and tag line shall come within 15 feet of energized electrical lines.
- For pick and carry operations, consult the Manufacturers Operator Manual and operating notes.

Material Handling Equipment

All material handling machines must have back-up alarms, horns, rollover protection structure and seat belt (when provided by the manufacturer).

Material Hoists

- Hoists are to be operated only by authorized operator.
- Passengers are not permitted-hoists are for material only.
- Know the weight of the material and the capacity of the elevator or hoist. Material must be secured so that it cannot shift, must not extend beyond cage limits.
- Follow instruction and use a signal system posted at each landing.
- Keep hands and body clear at all landing and openings.

Motor Vehicles and Power Equipment

Vehicles and mobile equipment are to be operated by authorized personnel only.

Cars, Pickups, Trucks and Scooters

The driver is responsible for the safety of all the passengers and the stability of materials being hauled. Use the following guidelines:

- Wear seat belts.
- Obey all speed limit and other regulatory signs. Give pedestrian the right-of-way.

- Look at the rear and sound your horn before backing.
- Shut off the motor to refuel.
- Shut off the motors and set the brakes before leaving the vehicle.
- Inspect the vehicle each day before use.
- Mount or dismount only when the vehicle is stopped.
- Keep arms, feet and bodies inside. All personnel must be seated.
- Personnel may not ride in the bed of any vehicle that is hauling equipment or material unless your supervisor approves, and then after only he/she checks the stability of the equipment or material.
- Personnel may not ride in the bed of a dump vehicle, unless your supervisor approves, and then only after the bed is secured to the chassis frame to prevent accidental dumping.
- A flagman should direct the backing of the vehicle in congested areas.
- No more than three persons may ride on the front seat of any vehicle.
- Truck driver must dismount from the cab and remain clear while the truck is being loaded by power equipment.

SIGNS AND BARRICADES

Signs

Use signs when necessary and remove them promptly when no longer required. Pay attention to signs – they mean what they say.

Numerous warning and instruction-type signs are available. Signs are to be placed on the barricades stands, posts or other suitable locations. Before work start they must be placed where they will be most effective and removed to proper storage when they are no longer needed. Signs must be legible.

Danger Tags

Danger tags are placed on switches and valves that must not be operated; they are printed with the words "HANDS OFF – DO NOT OPERATE."

Danger tags are used only to prevent operation of a switch, valves, or piece of equipment in cases where someone may get hurt or equipment maybe damaged.

Observe the following guidelines for the danger tags:

Do

- Place your tag and locked personally – do not have someone else do it.
- Sign the tag, date it, and put your badge number on it.
- Have a construction electrician lock and tag all electrical switches before you place your tag.
- Use only the standard danger tag.
- Remove your lock and tag when you completed your work.
- Destroy your tag when you removed it, and use a new one when needed.

- All tags placed by electricians must be accompanied by their lock.
- TRY the switch after locking and tagging and before starting the work to make sure you have locked out the correct one.

Don't

- Don't remove someone else's tag or operate a valve, switch or device that has another person's danger tag attached. You are subject to immediate removal from the jobsite if you do.
- Don't lock and tag a device unless specifically instructed to do so by your supervisor.
- Don't placed danger tags on defective tools and equipment.

Permits

The following written, properly authorized permits are required BEFORE you may begin any of the listed activities within certain operations.

Confined Space

Normally considered enclosures having limited means of access and egress e.g. tanks, vessels, bins, silos, boilers, pits, septic tank, sewers, underground utilities, pipelines and similar structures.

Do not enter a tank or confined space in operation areas until a valid Confined Space permit, signed by the responsible supervisor, is posted at the worksite and you are in compliance with this permit.

Work Permit

Work of any type in some operating areas.

Excavation Permit

Excavating, concrete breaking, or drilling inside or outside buildings where potential dangers may exist in operation areas.

Barricades

Barricades are required around most excavations, holes or openings in floor or roof areas, edges of roofs or elevated platforms, around certain types of overhead work, and wherever necessary to warn people against falling in, through, or off.

Types of Barricades

Warning barricades call your attention to a hazard but offer no physical protection, e.g. yellow synthetic tape on galvanized stands or posts.

Protective barricades warn and provide physical protection from falling, e.g. wood post and rail, cable, and wood post and chain.

Use

ANYONE WHO MAKES A HOLE OR OPENING IS RESPONSIBLE FOR HAVING IT BARRICADED.

Erection

Barricades must be 42 inches high and must be square and level. Barricades should be erected before the hole is cut, extended as the excavation progresses, and returned to the storage rack when no longer needed.

Numerous excavations in one area may be barricaded effectively by erecting a barricade around the general area.

Blinking lights must be used on the road blocks after dark; and an entrance, opening or gate must be left where practical.

A three foot opening should be placed for personnel entrances. Stepping over or ducking under barricades will not be allowed.

Floor and Wall Opening

Use

All holes or openings through floors and walls must be provided with holes covers or standard railing. Do not store material or equipment on a hole cover.

Stairway floor openings with the exception of entrances shall be guarded by standard railing and toe boards.

All wall openings from which there is a drop of more than four feet and the bottom of the opening is more than three feet above the working surface shall be guarded.

All open-sided floors or platforms six feet or more above adjacent floor or ground level shall be guarded by standard railing or the equivalent.

Placement

Hole covers must have a sign reading, "WARNING TEMPORARY COVER. DO NOT REMOVE UNLESS AUTHORIZED" or otherwise identified. Covers must be cleat, wired, or otherwise secured to prevent slipping sideways or horizontal beyond the hole. Covers must extend adequately beyond the edge of the hole.

Material

Three-quarter-inch plywood may be used, provided that one dimension of the opening is less than 18 inches; otherwise 2 inches lumber is required.

LADDERS AND SCAFFOLDS

Ladders

Straight and extension ladders must be tied off. Step-ladders must be fully opened and set level. Work facing the ladder with both feet on the rungs. Always face the ladder when climbing or descending. Stay off the top step of step ladders and top platform of ladders.

Inspect ladders before use. Ladders are not to be painted except for numbering purposes. Do not use ladders for skids, braces, work benches, or for any purpose other than climbing.

If it is necessary to place a ladder in or over a doorway, barricade the door and post warning signs.

While ascending or descending a ladder, do not carry anything that will prevent holding on with both hands. Use a hand line. Keep both feet on the ladder rungs. Do not reach out too far or place one foot on a line or piece of equipment. Change the position of the ladder as often as necessary.

Face a ladder when working for it. A safety harness is required if it is necessary to work backwards from a ladder and when six feet or more above the working surface. Check with your supervisor.

Metal ladders must not be used for electric welding or near any electric lines or services.

When not in use, the ladder should be returned to a proper storage area.

Report damage ladders to your supervisor for repair or disposal.

Straight and Extension Ladders

Place the ladder so that distance A is one fourth of distance B as shown in the illustration. Ladders must be equipped with a tie-off rope and nonskid safety feet or secured at the based, and must be adequately tied-off. The top of the ladder must exceed at least **three feet** beyond the supporting object when the ladder is used for access to an elevated work area.

After an extension section has been raised to the desired height, check to see that safety dogs or latches are engaged and that the extension rope is secured to a rung on the based section of the ladder. Extension ladders must be overlapped a minimum of three rungs. Do not take extension ladders apart to use their section separately.

Stepladders

Stepladders should always be opened and set level on all four feet, with spreader locked in place; they should never be used as straight ladder. Never stand on the top of the step ladder or place tools or material on the steps or platform.

Obtain specific safety assignments before using two man stepladders.

Stepladders must be tied off under certain conditions.

Scaffolds

Before starting work on a scaffold, inspect it to determine that handrails, toeboards, and decking are in place. That all wheels are locked on movable scaffolds, and that locking pins are in place.

When working on any scaffold platform not equipped with standard guardrails or complete deck, personnel must wear safety harness with the lanyard properly tied off to a substantial object capable of supporting 5,400 pounds.

When working on any scaffold (rolling, stationary or suspended) in the vicinity of energized electrical lines or equipment, employees must ensure that no part of the scaffold or his/her body shall come with contacts with the electrical lines or equipment. (A minimum of 15 feet separation is recommended.)

Do not change or removed scaffold members unless authorized.

Scaffolds deemed incomplete must be tagged and proper personnel protective equipment worn.

No one is allowed to ride in a rolling scaffold when it is being moved. Remove or secure all tools and material on deck before moving.
Do not climb on or work on any scaffold handrails, mid-rail or brace member. Use the ladder to get on the scaffold.
The erection of a scaffold exceeding 50 feet above the base plates must be reviewed and approved by Al Rawasi Qatar management after being approved by your employer. All scaffolds must be erected level and plumb on a firm base.

Scaffolds must be tied off or stabilized with outriggers when the height more than three times the smaller base dimensions. Scaffolds must also be tied off horizontally every 30 feet.

When space permits, all scaffold platforms must be equipped with standard 42-inches-high handrails rigidly secured (not wired) and standard 21-inches-high mid-rails, completely deck with safety plank or manufactured scaffold decking and rigidly secured toeboards on all four sides.

Adjusting or leveling screws must not be used on scaffolds equipped with wheels. Adjusting screws must not be extended more than 12 inches of thread.

Check with your supervisor for safe working loads on all scaffolds.

Rolling scaffolds shall be used only on level, smooth surfaces, or the wheels must be contained in wooden or channel iron runners. Watch for overhead clearance when moving.

Do not alter any scaffolds members by welding, burning, cutting, drilling or bending.

Do not rig from scaffold handrails, mid-rails, or braces.

Patented Metal Scaffolding

Parts and sections of scaffolding made by one manufacturer are not to be used with another manufacturer.

Suspended Scaffolding

Swinging stages, toothpicks, boatswain ("bos'n") chairs, floats and needle beams require special approval by your employer and the application reviewed and approved by Al Rawasi Qatar management.
Attach and secure the safety harness before stepping on these scaffolds and do not remove until clear of the scaffold. Tie off to an independent lifeline or building structure. Use one lifeline per person.

EXCAVATION

Each company performing excavation work must have a designated and trained competent person.

Appropriate documentation to meet the OSHA trenching and excavation standards is to be kept on site at all times.

Excavations must be barricaded to alert pedestrians and vehicles. Proper access must be provided.

Bumper guards (i.e. wheel chocks, timbers) should be used to prevent vehicles and equipment from overrunning the excavation edge.

Spoil dirt may be used to barricade one side of a ditch or similar excavation; all dirt must be piled at least two feet from the edge of the excavation and must be at least three feet high when used as barricade.

Remember the following guide lines for excavation:

- Equipment spotter must wear an orange neon vest while directing equipment for grading, filling, excavation or compaction work, etc.
- Barricade excavation area before the hole is opened or ahead of work progress.
- Excavation must be sloped or shored when deeper than five feet.
- Check all excavation walls before entering or after heavy rain or thaw. Check shoring daily or more often in extremely wet weather.
- An excavation permit is required before digging in some construction areas.
- No one is permitted in an excavation when equipment is working next to the edge.
- Excavations are to be monitored for gas and chemical hazards because many excavations are considered confined spaces.
- Excavations must be provided with a ladder for access and egress at intervals of 25 feet. The ladder must extend three feet above the edge of the excavation and must be secured.
- The maximum legal slope without soil classification is 34 degrees or 1 1/2 feet horizontal to one foot vertical.

WELDING AND CUTTING

General

Do not look at welding arc even if you have tinted lenses. It will burn your eyes. Keep welding leads and burning hose clear of passageways. Inspect all leads, grounds, clamps, welding machines, hoses, gauges, torches, and cylinders each day before use. Be sure that all fittings, coupling and connections are all tight.

Avoid breathing fumes. Use the exhaust system in the shop, a blower, or a respirator.

No burning or welding is to be done on a close vessel or tank that has not been decontaminated (cleaned).

Before striking an arc or lighting a torch, check with your supervisor to see if a welding or burning is issued. This permit is required in all plant operating areas.

Each welder is responsible for containing sparks and slag's and/or removing combustibles to prevent fire. A five-pound or larger, dry chemical fire extinguisher must be within 20 feet of any welding, burning, or open flame work. A "Firewatcher" is also required. Be sure you know how to operate afire extinguisher.

Hoses and welding leads should not be run through doorways. Protect them from damage if necessary.

Proper barriers or screens should be erected to prevent inadvertent exposure of arc to employees in operating areas (flash Burn).

Welders are to wear hard hats whenever working in construction or maintenance areas where potential overhead hazards exist.

Protective Clothing

Protective clothing required for welding and burning varies with the size, nature and location of the work to be performed.

- Only cotton, woolen or any special fire retardant synthetic clothing should be worn. Generally, synthetics are very flammable and melt, causing more serious burns when exposed to flames and high temperature.
- All welders should wear flameproof gauntlet gloves.
- Clothing should be free from oil and grease.
- Flameproof leather (or suitable material) aprons should be considered if long term exposure to radiant heat or sparks is anticipated.
- Consider using fire resistant legging, high boots or equivalent for heavy work.

Welding (Electric)

All work must have a separate or adequate ground. The ground lead must be pulled from the machine to the work location.

Do not leave a rod on the electrode holder when you lay it down.

Put stub ends in proper container – not on the floor.

You are responsible for turning your machine off at the end of your shift.

An approved welding helmet must be worn. Use no less than a No.10 filter plate, with safety plate on both sides of the filter plates..

Never do electric welding from a metal ladder.

Do not weld, cut or burn near or over aerosol cans or flammables.

Burning (Gas)

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 wide open. 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 cylinder valve. Use an approved spark lighter. Do not use matches or cigarettes to light a torch.

All compressed gas cylinders should be kept in bottle carts when transported or in use.

All burning rigs must be broken down at the end of the shift, with regulators removed and protective caps screwed down hand tight.

Compressed-gas cylinders must be tied off vertically to an adequate support 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 compress 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 substitute for compressed air or other gases.

Placed cylinders and hoses where they are not exposed to sparks and slag from a burning operation.

Handle cylinders with care, as follows:

- 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 arrestor shall be installed on all fuel gas cylinders or built into the regulators.

Compressed Air

Check hoses and couplings daily before use. Use only hoses designed to handle decompresses air. Never crimp, couple, and uncouple pressurize hose. Shut off the valves and bleed down the hose.

All hose coupling must be provided with a positive locking device (i.e. wired together).

Compressed air for cleaning workbenches and machinery must not exceed 30 psi.

Keep hoses of the ground or floor wherever they interfere with walkways, roads, etc.

ELECTRICAL

General

Any employee working in the vicinity of energized power distribution lines must ensure that no part of his/her body, tools, or equipment shall come within 15 feet of the power lines. If the job requirement does not permit this, specific safety precautions must be taken to ensure employee safety.

Electrical crafts must take the necessary precautions and refer to a hot permit procedure if work is to be accomplished inside the references radius.

Electrical Circuitry and Apparatus

Hot work means working on or near energized electrical lines or equipment and is not to be done unless reviewed with and approved by Al Rawasi Qatar management.

Only qualified electrician must be allowed to perform electrical work.

Employees engaged in electrical work must have adequate tools and protective equipment. Wiring and cords shall be seven feet above ground or floor level.

All disconnects for motors and apparatus, and each service feeder or branch circuit at the point when it divides, must be marked to include what it controls.

All energized electrical panels and outlets must be covered against accidental contact with conductive material.

FIRE PROTECTION

General

"Strike anywhere" matches are not allowed.

Permits are required for welding, burning or other open flames on some projects.

Alarms

Know the location of the nearest fire alarm box and how to turn an alarm. Know the alarm, evacuation and disaster signals for your area; the proper exit route; and the disaster assembly area.

Extinguisher

Know the location of the nearest fire extinguisher and how to operate. Know the type of fire on which it should be used. Check the label. Be aware that certain toxic fumes may be generated by a fire.

Fire extinguisher of the proper type and size must be within 20 feet of each open-flame operation that you perform. Return extinguisher for servicing promptly after use.

Combustibles

Combustibles material must be kept away from steam lines, radiators, heaters, and hot process and service lines. Combustible material under or near welding and burning operations must be moved a safe distance away or covered with fire retardant material. Where this is not possible, all sparks and slag must be contained in an approved spark catcher.

Refueling

Portable power equipment must not be refueled while running or when hot. Attach the ground wire before refueling.

Smoking

Smoke in approved smoking areas only. Discard butts in approved containers, never in waste baskets or trash cans.

Flammables

Store flammables in properly "labeled containers" and in designated areas. Keep flammables away from smoking, welding, burning, or other sources of heat.

Liquids – Flammable

Do not use any of the following types of liquid until given specific safety instruction to do so.

- Petroleum fuels
- Solvents
- Thinners
- Degreases
- Protective coatings
- Acids
- Caustics

Spaying any of these liquids increases the fume and vapor problem and creates fire and explosion hazards. Get complete safety task assignments (STA), including respiratory, ventilation, and skin protection requirements. Do not mix different liquids or chemicals unless specifically to do so.

HAZARDOUS MATERIALS

Corrosive Liquids (Acids and Caustic)

Do not store, handle, apply or use acids or caustics until your supervisors has given you detailed instructions, safety precautions, and proper protective equipment.

When disconnecting flanges, **expect** to encounter pressurized corrosive liquid and protect yourself accordingly. Check contents through a bleed or drain valve, etc. **before** beginning work. Where required, use acid coat, hood, boots and gloves; barricades areas; and have standby and emergency water immediately available.

Never add water to acid; if dilution is needed, add acid to water.

Dispose of chemically soaked material in the proper container.

ALL LIQUID CONTAINERS MUST BE PROPERLY IDENTIFIED AS TO CONTENTS.

Hazardous Waste

Flammables, corrosives, toxic material and highly reactive materials require special disposal. See your supervisor or hazardous waste coordinator for the proper container of these materials.

Radioactive Material

Keep clear of all radioactive material and areas where work is being done with radioactive material. These areas will be barricaded and posted with a radiation hazard sign.

HAZARD COMMUNICATION
(Right to Know)

If you are working with hazardous chemicals, or may come in contact with them, you must be provided information and training concerning the hazardous chemicals by your employer. This training should include, but not limited to:

- An explanation of the Hazard Communication Standard.
- Notification of the training requirements of the Hazard Communication Standard.
- An explanation of the project Hazard Communication Program and its location.
- Instruction on how the project training program accomplishes the federal requirements.
- Notification to the locations of the hazardous chemicals.
- A description of the leveling system.
- A description of the client/plant hazard rating system.
- A description of the Material Safety Data Sheets (MSDS), their use and location.

If you have any concerns or desire any information concerning chemicals in your work place, ask your supervisor for the information.

Reporting of accidents/Incidents/Near misses

All incidents / near misses resulting in or having potential for injury, damage or lost must be report immediately to Al Rawasi Qatar (AL RAWASI QATAR) Safety Officer, both orally and in writing.

Written report must detail the nature of accident, the time and date of the occurrence and the precise location, as well as other pertinent factors which may have contributed to the occurrence. All statutory notices sent to the Enforcing Authorities concerning the occurrence shall be copied to AL RAWASI QATAR. Copies of reports of all incidents reported to the Government Safety Authorities shall also be sent to AL RAWASI QATAR.

Full details of any witnesses must also be obtained and any breach of stature or permit to work arrangements must be recorded.

Where personal injury has occurred, a medical report must be obtained and included with the written report or submitted immediately afterwards.

Safety circles will be held to determine the lessons learned and actions to be taken as a result of all accidents and near misses. Safety circles will consist of the AL RAWASI QATAR Contractor Superintendent, Safety Manager, Subcontractor, Construction Manager, Subcontractor Foreman, Safety Representative and individual involved in accidents or near misses.

The Senior Management Representative of the AL RAWASI QATAR contractor and of the Subcontractor involved in an accident / near miss will ne required to investigate and give a detailed account of the circumstances of the incident.

Worksite Emergency Evacuation Plan

An emergency or disaster is defined for the purpose of this plan as an event or condition which has potential of causing bodily injury to employees and/or significant damage to the plant and/or infrastructure. Specific contractor evacuation plans will be developed for their site locations and will become appendices to this procedure.

Procedure

Upon declaration of a project emergency, the alarm and assembly procedure will be implemented immediately:

a) Alarm: In the event of an emergency the plant alarm will sound. All project personnel shall proceed to pre-designated assembly areas.

b) Following the announcement of an alarm, radio traffic will be confined to emergency communications only.

c) Telephone lines will be used only by those authorized to use them for the purpose of dealing with the emergency.

d) Assembly: upon receiving instructions to assemble, all craft employees will secure their work area in a calm, orderly manner to the assembly area.

e) Securing a work area includes but is not limited to the following:

- All motorized equipment, welding equipment, and burning equipment will be shut down.
- Electrically powered tools will be disconnected from their power source.
- Employees assigned to motorized equipment/vehicles will park off the site roads clear of fire –protection devices, i.e., hose houses, hydrants and PI valves.

NOTE: No vehicles other than emergency vehicles will be driven on the site in an emergency condition without the permission of emergency Director.

f) All Foremen will wait for their workers in the assembly areas. Foremen will ensure all employees working in remote areas and in confined spaces have been altered and have proceeded to the assembly area.

g) Foreman will conduct a roll call of their employees. If any employees are found to be missing, the contractor site manager will be informed immediately of the employee's name, brass number, and last known location of the employee.

h) The Contractor Office Manager or his designated representative will call the roll of salaried employees and visitors. If any employee is found to be missing, his name, brass number and last known location will be reported immediately to the contractor site manager.

i) No attempt will be made to locate missing employees until: (1) a search is authorized by the Program Manager, and (2) it is determined that a search and rescue party can be reasonably protected during such a search.

Emergency Evacuation Procedure

Type of emergency:

- **Fire**
- **Vapor release**
- **All clear**
- **Testing**

1) If the plant emergency alarm is sounded, all work must cease immediately. Employees are to proceed in an orderly manner to the designated assembly area. Once clear of the area **DO NOT GO BACK FOR ANY REASON.**
2) Employees should stay in the group they were working with in order that an accurate head count can be obtained.
3) Foreman will immediately report headcount to their general foreman. The general foreman will report to their superintendent who will report to the construction manager.
4) Foreman will remain with their crews:
    a) Monitoring for signs or symptoms of injury or exposure.
    b) Providing or requesting assistance needed.
    c) Being prepared to direct employees as to instruction given by senior management.
5) DO NOT return to the area until the all clear signal has been sounded and it is safe to do so.

- **ALL PERMITS WILL BE CANCELLED**
- **Maps indicating evacuations alarms and routes shall be developed by the Contractor Safety Manager and posted in conspicuous places on the project. In addition to the above mention information, it will include emergency telephone numbers.**