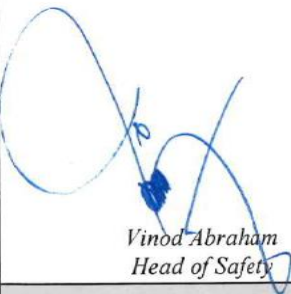



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RGPC Health and Safety Hand Book for Staff and Contractors

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1 Introduction

The RGPC Safety Hand Booklet has been prepared for the benefit of all persons involved in the plant activities and helps them to conduct their activities safely. The Safety Hand Book is a brief summary of RGPC Policies, Practices, Rules and Procedures.

Incidents can cause pain and suffering, not only to those involved but also to their family and friends. Incidents have a negative impact on the company, with reputational damage and process disruption and may cause environmental damage. The company expects its all staff and contractors/subcontractors staff to comply with all company safety policies and procedures and act in a manner that does not expose themselves or the Plant to unacceptable risks.

1.1 RGPC Occupational Health and Safety Policy

It is the policy of RGPC to ensure a safe and healthy working environment for all of its employees. In order to achieve the goal, RGPC will:

- ✚ Ensure for its employees, service providers and others doing business with the Company, a safe and healthy working environment.
- ✚ Provide its employees with facilities, tools and equipment in good condition that meet safety requirements.
- ✚ Instruct and train its employees on Occupational Health and Safety.
- ✚ Carry out risk analysis for the entire Plant activities and each time new equipment and/or new working practices are put to use that could pose a risk for the employees.
- ✚ Provide information on the Company's requirements on matters of safety and health in a systematic manner to its suppliers, contractors and service providers.
- ✚ Ensure the active participation of management in matters of Health and Safety.
- ✚ Ensure that all its employees receive the necessary training for their individual jobs, providing written procedures and working instructions.
- ✚ Carry out regular audits to ensure the efficacy of the system.

1.2 RGPC Employees shall:

- ✚ Commit yourself to RGPC Health and Safety Policy. Compliance with RGPC OHS Policies and Procedures shall be a condition of employment for all RGPC personnel.
- ✚ Behave in a safe manner, stop others from unsafe acts.
- ✚ Use the required Personal Protective Equipment under all circumstances.
- ✚ Report all Unsafe Act or Conditions promptly to your immediate supervisor and department head. Reporting incidents including near misses, unsafe acts and conditions can help prevent them occurring in future.
- ✚ Responsible for his / her own safety and must observe the Company's OHS Rules and Regulations applicable to the workplace.
- ✚ Responsible in making the workplace area a safe place for yourself and your fellow colleagues.
- ✚ Initiate the action on gaps/improvement that you identify.
- ✚ Lead others by the example of your good conformance behaviors.

- ✚ Follow instructions given to ensure workplace Health and Safety; Not place yourself or anyone else at risk of injury or illness.
- ✚ Not interfere with or misuse anything provided to ensure your health and safety or the health of the environment.



REMEMBER... SAFETY STARTS WITH YOU

1.3 RGPC Life Saving Rule: to help achieve the target of zero fatal accidents, the company has developed Life Saving Rules. Contractor must ensure that teams' working environment complies with the lifesaving rules. They are non-negotiable and contractor personnel may be excluded from work upon breach. These are:

1. Do not walk or stand under a load.
2. Stay out of the path of the moving vehicle, plant, and equipment.
3. Clip on your Harness When working at Height
4. Keep yourself and others out of the line of fire.
5. Only enter a trench if appropriate wall supports are in place.
6. The atmosphere must be tested safe before entering a confined space and monitored as you work.
7. Do not perform hot work unless the fire or explosion risks have been eliminated.
8. Verify that there is no live energy (mechanical, chemical, electrical, fluids, under pressure, etc.) before starting work.
9. Follow the driving safety rules
10. Work authorization

The infographic displays 10 life-saving rules in a grid format. Each rule is numbered and includes a title, an icon, and a small illustration. The rules are: 1. Do not walk or stand under a load. 2. Stay out of the path of moving vehicles, plant and equipment. 3. Clip on your harness when working at height. 4. Keep yourself and others out of the line of fire. 5. Only enter a trench if the appropriate wall supports are in place. 6. Atmosphere must be tested safe before entering a confined space and monitored as you work. 7. Do not perform hot work unless the fire or explosion risks have been eliminated. 8. Verify that there is no live energy (mechanical, chemical, electrical, etc.) before starting work. 9. Follow the driving safety rules. 10. Work Authorization. At the bottom, there is a logo for RAS GIREAS Power and the slogan 'Your health and safety is our priority' with the date 'RGPC Safety Moment - June 2022'.

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2 Plant general safety rules

- ✚ Access control in the Plant areas is strictly enforced. All RGPC areas are security manned 24/7. All visitors are needed to report security office for the necessary registration and receive RGPC Visitors Pass.
- ✚ All personnel shall undergo Safety Induction training.
- ✚ All employees, contractors should display their Company ID at all times.
- ✚ No visitor shall be allowed onto company premises without accompanied by RGPC employees.
- ✚ Appropriate Personal Protection Equipment shall be worn at all the times and be responsible for safe keeping and maintenance of them. Selection of the correct PPE may require assistance contact the RGPC Safety Department for guidance.
- ✚ Smoking will only be permitted in designated areas.
- ✚ Be alert and keep away from all overhead loads.
- ✚ Always keep your work area clean and orderly. Poor housekeeping habits can be a serious safety hazard.
- ✚ Use proper access walkways, road etc. /other point of egress instead of shortcuts and do not leave materials in aisles, walkways, stairways, roads or other points of egress.
- ✚ Never start any new work, whose operations are not familiar to you, take proper instructions from Supervisor/Technicians, who are well versed on that.
- ✚ Always use the correct tool for the job, do not improvise and beware of safety features and be careful. Don't remove safety features or guards from machinery or equipment.
- ✚ Whenever mobile equipment or vehicles are equipped with seat belts, the operator and passengers shall use the belts whenever the equipment is moving. Never dispense gasoline into a fuel tank while the engine is running, or the motor is hot.
- ✚ Do not stand or sit on the sides of any moving equipment and do not travel on the equipment which is not designated for multiple men carrying. Do not rest, lie-down or hide yourself under any equipment/vehicle.
- ✚ Avoid manual lifting of materials, articles or objects which are too heavy. Maintain proper manual handling techniques. If the object is too heavy for you, get assistance or use mechanical lifting devices.
- ✚ No scaffolding shall be used unless inspected and green tagged as 'safe for use'.
- ✚ Workers shall not throw anything to the ground from any elevated position.
- ✚ Become familiar with the location of safety and emergency equipment in the workplace and ensure escape routes are unobstructed.
- ✚ The use of alcohol or drugs is strongly forbidden in work.
- ✚ Compressed gas cylinders should be stored in an upright position and chained or otherwise secured. Where not connected to a service line or manifold system, the protective caps for these cylinders shall be in place.
- ✚ Flash-back arrestors or reverse gas flow check valves must be in place on all oxy-acetylene fuel cutting equipment.
- ✚ Compressed air shall not be used for cleaning clothing or to blow dust from your body.
- ✚ All will heed signs, posters, or hazard bulletins posted on company premises; they must not be removed.

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- ✚ Do not attempt to repair defective wiring or other electrical equipment. Report defective electrical equipment to your Supervisor. Electrical equipment can only be repaired or serviced by a qualified electrician.
- ✚ Camera permit is required to use camera inside the RGPC plant and RLC Camera permit for outside areas.
- ✚ All incidents including near misses shall be reported

3 Plant health and safety requirements

3.1 Safety Inductions

Every employee, contractors and visitors are required to have completed the Plant Safety Induction course before accessing to the site;

Visitor Induction: a brief session on HSE requirements for all visitors to the plant.

HSE Induction: a detailed HSE induction is given to all contractors and employees followed by a written test. A permanent plant access card will be issued to those who passed the induction test and the card will be valid for three years period.

Safety induction for the delivery vehicle drivers travelling directly to the main store using west gate will be given by the gate security before issuing the temporary vehicle access pass.

3.2 Personal protective equipment- Requirements

3.2.1 General

Its RGPC's policy to facilitate the implementation of appropriate PPE that shall be utilized by RGPC employees, contractors and visitors. All PPE shall comply with the International PPE Standards and will be appropriately maintained and replaced where it becomes defective.

3.2.2 RGPC Mandatory PPE - list of mandatory PPEs which need to wear while working / inspecting the RGPC Plant are;

1. Head Protection (Safety Helmet);
2. Coveralls;
3. Foot Protection (Safety Shoes);
4. Eye Protection- Dark/White (Prescription glasses may be worn where side shields are fitted and the lenses are of toughened glass or over glass will be worn);
5. Ear Plug/Ear Muffs.

Other PPE shall be worn in the correct manner and in accordance to the type of work being undertaken, as stipulated in risk assessments, work procedures and as directed by the Engineers and Supervisors.

Examples of additional PPEs are- *Hand/Arm protection, Safety Harness, Face / Ear Protection, Life Jacket, Welding Shields and Dust mask etc.*

3.2.3 Head Protection

- ✚ Hard hats shall be worn all the times at the plant exception only in PPE free zone areas around the office admin buildings.
- ✚ Other PPE or equipment must not compromise the level of protection provided by the hard hat. A proper fit must be ensured when using a hard hat.

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- ✚ Nothing shall be carried inside the headwear. Space between the head and the headwear is needed to absorb the energy of an impact.
- ✚ Hard hats shall not be modified and shall be kept clean. Where any kind of identification is required on hard hats, only approved stickers shall be used.
- ✚ All hard hats must meet the requirement of ANSI standard Z89.1 or CSA Standard Z94.1.
- ✚ Inspect the shell, suspension and liner of the hard hat daily before use.

3.2.4 Coveralls: RGPC will issue single piece coverall to all his employees and the contractor staff shall wear their uniforms with their company logo. The company shall provide disposable coveralls for the visitors.

3.2.5 Foot Protection (Safety Shoes)

- ✚ Protective foot wear shall be worn all the times in the plant areas. Exception is only inside the office building and within the PPE free zone areas.
- ✚ Protective footwear shall be in good condition and well maintained.
- ✚ Safety toes shoes shall be issued to all visitors.

3.2.6 Eye/Face Protection (Safety Goggles)


- ✚ Eye protection shall be worn all the times at site. Every employee shall be issued with dark and clear safety glasses. Over-glasses shall be issued for all employees using prescription glasses.
- ✚ Eye and face protection shall not be modified.
- ✚ Face protection shall be worn where hazard and risk assessment identifies the requirement.
- ✚ Other PPE or equipment must not compromise the level of protection provided. Face shield will have appropriate arc rating based on the hazard.
- ✚ Inspect safety glasses and face protectors for damage or defects that could decrease visibility or affect their ability to provide protection. If in doubt, replace.

3.2.7 Hearing Protection



- ✚ Hearing protection shall be worn in high noisy area e.g. Main pipe rack, PRDS, GTG/STG buildings etc.
- ✚ Hearing protection shall be approved and be adequate to reduce noise levels entering the workers ear below 85 dBA.

Donning Instruction for soft foam ear plugs:

To get the best protection, remember to roll, pull, and hold when putting them in. Use clean hands to keep from getting dirt and germs into your ears.

	<ol style="list-style-type: none"> 1. Roll the earplug up into a small, thin "snake" with your fingers. You can use one or both hands.
---	--

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	<p>2. Pull the top of your ear up and back with your opposite hand to straighten out your ear canal.</p>
	<p>3. Hold the earplug in with your finger.</p>
<p>Note: Check the fit when you're all done. Most of the foam body of the earplug should be within the ear canal. Try cupping your hands tightly over your ears. If sounds are much more muffled with your hands in place, the earplug may not be sealing properly. Take the earplug out and try again.</p>	

3.2.8 Hand and Arm Protection

- ✚ Hand and arm protection shall be worn based on the requirements of a hazard identification and risk assessment.
- ✚ Hand protection includes gloves that are designated to protect the hand from electrical, biological, thermal conditions and physical hazards.

3.2.9 Fall Protection

- ✚ Full body harness and components shall be issued to all employees who require performing the job at height.
- ✚ Full body harness and components shall not be modified or marked by markers, paint etc.
- ✚ Workers shall be trained in the use of full body harnesses and fall arrest devices.
- ✚ Full body harness and components in use shall be inspected by a TPI in half yearly basis and be certified.
- ✚ Full body harness and components shall be inspected by the user prior to use.
- ✚ Full body harness and components that have been subject to a fall shall be removed from service, tagged and inspected for reuse or disposed.

Using a Safety Harness: The following shall be considered before using a Safety Harness:

- ✚ Check harness for damage before use.
- ✚ Suitable Anchor point shall be identified.
- ✚ There shall be sufficient distance available for the person using the harness to fall, without hitting the ground or other horizontal structures.
- ✚ Free fall shall be restricted to 2 metres or less.
- ✚ A rescue plan should be considered to quickly retrieve a fallen person and the requirement of a rescue plan shall be identified during the hazard identification and risk assessment.
- ✚ All components of the harness should be inspected every 6 months by a competent person.

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3.2.10 High Visibility Clothing

- ✚ High Visibility clothing shall be worn where risk assessment and PTW identifies the requirements.
- ✚ High Visibility clothing shall be worn by workers conducting banksman, rigger, and fire watch and hole-watch activities.

3.2.11 Arc Flash Suit

- ✚ The hazard and risk assessment will be used to assess the potential incident energy for the intended task and apparatus.
- ✚ When it has been determined that elimination of the Arc Flash Hazard is not practicable the workers shall select Arc Flash PPE that provides protection from the anticipated potential incident energy. Arc Flash assessment shall be used to assist in selecting PPE of the appropriate protection level.

3.2.12 Respirator Protection

- ✚ The appropriate respirator shall be worn, where hazard identification and risk assessment identifies the requirement.
- ✚ Workers shall be trained in the selection, use, fit and maintenance of respiratory equipment.
- ✚ Ensure that nothing interferes with the seal between face and respirator and that there is no facial hair in the areas where a specific respirator is to seal to the skin.
- ✚ Check the seal after donning the respirator.

3.3 Housekeeping

An organized work area helps in not only ensuring safety, but assists in getting work done efficiently and applies to all work areas. The main points to remember are:

- ✚ Workers shall return materials, tools and equipment to their proper place.
- ✚ Surfaces shall be kept free of grease and other slippery substances.
- ✚ Lockers and washrooms shall be maintained in an orderly and sanitary condition.
- ✚ Extension or telephone cords, etc., shall not be stretched across the floor in a manner that may create a tripping hazard.
- ✚ Use of electrical extension cords shall be kept to a minimum. All electrical portable equipment shall be maintained in good repairs and PAT tested as per RGPC policy.
- ✚ Hazardous substances and dangerous goods are to be stored as per regulatory requirements.
- ✚ Put all wastes in the correct bins provided.
- ✚ Put everything back in its place when finished with it, the next person who wants to use it should not have to go looking for it.

3.4 Fire prevention

- ✚ All Plant facilities are protected with both fire detection and protection system. Do not tamper with any of those facilities.

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- ✚ Emergency exits, corridors, stairwells and access to fire extinguishers, eye wash stations and other equipment are to be kept clear at all times.
- ✚ Workers shall be familiar with the operation of portable fire extinguishers, fire action plan, and location of nearest fire extinguishers and exist.
- ✚ RGPC shall ensure that portable fire extinguishers are inspected and maintained in good working order.
- ✚ Approved containers shall be used for the storage of combustible and flammable substances.
- ✚ Areas with FM200/CO2 suppression system shall be posted and workers shall be informed of the hazards of inert gases.
- ✚ RGPC Hot work procedure and PTW requirements shall be followed for any hot work activity.

Note: For further information see **RGPC Fire Fighting Equipment Operation and Maintenance Guidelines RGPC-10-10.18.**

4 Hazard Control



It is a RGPC policy that all tasks, and circumstances are assessed to identify hazards and that reasonable practicable measures shall be taken to eliminate, reduce or control those risks. Work method statement shall be developed for each job activities which will be reviewed and approved by section heads.

The risks must be minimized to the as low as reasonable practicable (ALARP) by using Hierarchy of Control in the following order;



1. Elimination;
2. Substitution;
3. Engineering Controls;
4. Administrative Controls; and
5. Personal Protective Equipment.

Note: For further information see **RGPC Hazard Identification & Risk Assessment procedure RGPC-10-10.19.**

4.1 Hazard Identification- Colour of Safety Signs

Colour - Red Description - circular red band and cross bar Safety Signs - <u>Stop, Prohibition</u>	
Colour - Yellow Description - Triangle with black band Safety Signs - <u>Caution, risk of danger</u>	

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Colour - Blue Description - Circular blue disc Safety Signs - <u>Mandatory action (must do!)</u>	
Colour - Green Description - Green square or oblong Safety Signs - <u>Safe condition</u>	

4.2 Job Safety Analysis (JSA)

JSA shall be prepared for all plant activities. All JSAs shall be reviewed and approved by Section Engineers and Safety Department. RGPC LMRA (Last Minutes Risk Assessment shall be followed for every job at site.

5. Electrical tools and protective equipment

The hazard and risk assessment process will determine the protective tools and other PPE that are required for each job/task. The PPE requirements shall be documented in the JSA/PTW. Workers shall be trained in the application and use of protective tools and equipment.

5.1 High and Low Voltage Rubber Gloves and Sleeves

- ✚ Rubber gloves shall be worn where the hazard and risk assessment requires them while performing hand contact work on all electrical apparatus.
- ✚ Rubber gloves and their leather protectors shall be in good condition.
- ✚ Rubber gloves shall be checked before each use by means of an air test or visual inspection.
- ✚ Rubber gloves and sleeves shall not be used beyond the test expiry date.
- ✚ Workers having reason to believe their gloves or sleeves are defective shall stop using them and send them in for testing.
- ✚ Rubber gloves and sleeves shall not be stored in direct sun light and kept in their natural position. Rubber gloves shall be inserted cuffs first into the supplied container.
- ✚ Worker shall not wear jewellery on the hands / arms to avoid damaging rubber gloves.
- ✚ Powdered talc shall be the only lubricant used in rubber gloves.
- ✚ Rubber gloves shall not be worn when working on energized apparatus when adverse weather conditions dictate the use of additional protection.

5.2 Different types of Electrical Gloves

Class 0 Gloves- for working on energized equipment in excess of 50volts but less than 1kV.

Class I Gloves- for all direct hand contact with conductors or apparatus from 1kV to 5kV (phase to phase).

Class II Gloves- for worn during direct hand contact with conductors or apparatus from 1kV to 5kV.

Class III Gloves- Class III Rubber Gloves shall be worn when performing 25kV work.

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5.3 Fiberglass Reinforced Plastic (FRP) Live-Line Tools

- ✚ Hot sticks shall be visually inspected for signs of damage before each use.
- ✚ Live-line tools shall not be used past the expiry date label on the stick.
- ✚ Alteration or modification shall not be made to hot sticks.
- ✚ A live-line tool shall be removed from service if one of the following observations is made;
 - A tingling sensation when the tool is in contact with an energized conductor or piece of apparatus.
 - Deterioration of the surface of the FRP rod, such as loss of glossy appearance, cuts, gouges, dents, cracks, fraying or delaminating.
 - Evidence of bent or cracked components.
 - Evidence of overloading (deformed rivets indicate that excessive mechanical loading has occurred and has weakened or sheared the bond between the ferrules and FRP rod.
 - Live-line tools shall be maintained in a clean condition.
 - Live-line tools shall be kept in weatherproof enclosures when not in use.

6 Work At Height

6.1 Ladders and stairs

- ✚ Ladders shall be selected, used and maintained to perform their function safely;
- ✚ Portable ladder other than a step ladder, shall;
 - Always maintain a 1 (horizontal) to 4 (Vertical) ratio.
 - Workers shall face the ladder and maintain three points of contact.
 - Workers shall extend the arm beyond the rails.
 - Ladder must extend a minimum of one meter above any platform, roof or landing.
- ✚ All portable ladders shall be equipped with non-slip feet and be secured against accidental movement during use;
- ✚ Defective ladders shall be destroyed;
- ✚ A worker shall not work from the top two rungs or steps of a portable ladder;
- ✚ While ascending or descending a ladder a worker shall maintain three points contact;
- ✚ Ladders being moved in areas of overhead exposed energized equipment or facilities shall be carried in horizontal position;
- ✚ Use of portable metal ladders near exposed electrical circuit or equipment is prohibited;
- ✚ Portable ladders shall not exceed 9 m in length;
- ✚ Every ladder or run of ladders rising to a height exceeding 9 m shall be provided with an intermediate landing, providing further that the intervals between landings shall not exceed 9 m. The landings shall be of suitable size and protected by railings;

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- ✚ A ladder shall not be placed in front of a door that opens towards it unless the door is fastened or locked or guarded.

6.2 Portable stepladders

- ✚ The length of portable stepladders shall not exceed 8.6 m and their back legs shall be adequately braced.
- ✚ Stepladders exceeding 1.5 m in length shall have two or more cross-ties.
- ✚ Stepladders shall be fully opened and in a locked position when being used.
- ✚ The spread between the front and back legs shall be restricted by means of hinged metal flat bars or high-grade fibre or other effective means.

6.3 Scaffolding and Safety Means of Access

- ✚ Temporary means of access and scaffold structures shall comply with the site requirements and best international practice. Scaffolds team or contractor shall produce evidence of training and that they are competent to meet the required standards.
- ✚ All scaffold structures should carry a suitable scaff-tag which bears the safe working load of its platforms; the scaffold inspector's signature, date & time of inspection, if more than seven days older backside of scaff-tag re-inspection date and signature must be done. Incomplete, alteration or dismantled scaffolds must carry a "Don't use" Scaff-tag holder, as information.
- ✚ The Contractor shall maintain a register on site of all scaffolds and the dates of inspections of those for which he is responsible. No scaffolding shall be used by anyone unless it has been inspected for satisfactory condition within the previous seven days.

6.4 Other Requirements

- ✚ All operations above ground level (including scaffold erection and dismantling) shall be carried out in such a way that non-involved personnel in the vicinity of the work are not at risk.
- ✚ Personnel shall not be permitted to climb whilst carrying tools or heavy loads, the only exception being tools carried in a waist belt designed specifically for the purpose. Where necessary, tools shall be hauled up and lowered in a suitable container.
- ✚ Where practical, personnel shall not be assigned to work directly below the overhead work positions or other persons. Where this is unavoidable, suitable precautions shall be taken. Safety nets shall be installed.
- ✚ Tools, equipment etc. shall be kept in such a location that they do not represent a tripping hazard and cannot fall or be knocked from the structure.
- ✚ Where no catchments means are located below the workplace, safety lines shall be attached to tools and similar equipment.
- ✚ During the possibility of a thunderstorm, all the work at a height where a person can be exposed to lightning shall be stopped.

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- ✚ All overhead work shall cease when wind speed reaches 25 knots.
- ✚ Any overhead work, which must be carried out during the hours of darkness, shall be subject to approval from RGPC Operation and Safety Section. Such approval shall include the required standard of illumination. Erection and / or dismantling of scaffolding during the hours of darkness are only permitted in cases of extreme urgency and when no other practicable alternative can be identified.
- ✚ When overhead work is required on wet structures or their means of access, the Supervisor, prior to starting the work shall inspect those facilities.
- ✚ Where such facilities become wet during the operation, work may continue only in order to make the structures safe. Work shall then cease until inspection by the Supervisor confirms that it is safe to continue.
- ✚ Upon completion of the day's work, all ropes and tackles shall be securely tied back to a permanent structure. The means of access shall be blocked off and any crane jibs shall be tied down to their resting brackets.
- ✚ Where scaffolds and platforms are erected above walkways or work areas, the space between the toe-board and railing shall be screened and the hazardous area below barricaded off and high visibility warning signs and lights posted.

Note: For further information see **RGPC Work at Height procedure RGPC 10-10.13.**

7 Lifting operation

7.1 Cranes and other Lifting Devices

- ✚ Supervisor and workers shall ensure that all cranes and lifting devices are inspected and are of a capacity that is adequate for the job.
- ✚ Only qualified and competent operators shall operate cranes and lifting devices. The Operator's proof of certification shall be valid and readily accessible.
- ✚ Cranes and lifting devices shall undergo third party inspection and shall have a valid TPI certificates.
- ✚ Any cranes or lifting devices that is involved in any incident that may affect the structural integrity of the device shall be inspected by TPI and recertified prior to put the device into the service.
- ✚ Lifting area to be barricaded.
- ✚ All lifting devices shall be colour coded as per RGPC lifting colour code.
- ✚ Rigger shall be present for each lifting operations.

7.2 Jacks (Hydraulic or Mechanical)

- ✚ Jacks shall not be subjected to loads in excess of their rating.
- ✚ Jacks shall be placed so that a firm footing is assured.

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- ✚ Jacks shall be properly centred under loads.
- ✚ Jacks shall never be left standing under a load with the handle in the socket.
- ✚ Workers shall not rely on jacks alone to support any load under which they have to work; the load shall be securely blocked.

7.3 Towing Devices

- ✚ Only approved towing devices shall be used.
- ✚ Metal devices shall not be used for the joining of synthetic tow ropes.
- ✚ Towing device shall not be overloaded.
- ✚ Towing devices that are damaged beyond the manufacturer inspection criteria shall not be used.
- ✚ TPI certification shall be available.

7.4 Winches

- ✚ When operating a winch on a vehicle, the operator shall ensure the vehicle is secured against inadvertent movement.
- ✚ No worker shall be permitted to stand near or pass over or under a winch cable between the winch and its load while it is in use.
- ✚ All manually operated winching equipment shall be inspected prior to use.
- ✚ A winch shall not be operated beyond its safe work load limit.

7.5 Aerial Devices, Man Baskets and Elevated Work Platforms

- ✚ A hazard and risk assessment shall be performed prior to operating or using this equipment.
- ✚ Operator shall receive a third-party training and certified to ensure competence in the safe operation of aerial equipment.
- ✚ Workers shall be provided with and trained in the use of fall arrest equipment. Workers shall use the fall arrest equipment provided.
- ✚ Aerial devices, man baskets and MEWPs shall have a valid TPI certificate.
- ✚ When this equipment has to work near the exposed electrical conductors, extra care shall be given.
- ✚ Workers shall not remain in an aerial device that is being moved unless the device is designed to perform that function.
- ✚ Aerial devices, MEWPs or personnel lifting units shall be designed, constructed erected, operated and maintained in accordance with the manufacturers recommendations.

Note: For further information see **RGPC Lifting Operation Procedure RGPC 10-10.20.**

7.6 Powered Mobile Equipment- PME (e.g. Fork Lift, Cranes, Bobcat, and Excavators etc.)

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- ✚ Powered mobile equipment shall have a documented inspection prior to daily use and in accordance with the manufacturer recommendations.
- ✚ Powered mobile equipment shall be TPI certified as per RGPC policy.
- ✚ Before an operator starts any PME, they shall conduct a visual inspection of the equipment and the surrounding areas to ensure that no worker including the operation is in danger by the start-up of the equipment.
- ✚ Powered mobile equipment found to be unsafe shall be removed from service.
- ✚ Seatbelts or other restraining devices shall be used by the operators at all times.
- ✚ Banksman shall be present at all times during the operation.
- ✚ Operator and banksman shall keep constant watch for indications of underground utilities, overhead wires and other existing plant facilities.
- ✚ Operators shall not leave the controls of running mobile equipment unattended.
- ✚ Workers shall remain out of range of the swinging movement of a load or a part of the mobile equipment that may endanger them.
- ✚ Proper barricading shall be installed at the working areas.
- ✚ Booms, buckets and blades shall be lowered to the ground before an operator leaves the machine. Loads shall be transported as low as possible.
- ✚ Climbing on or off any machine while it in motion is prohibited. Operators shall not allow anyone to stand on the forks or climb on the upright assembly.
- ✚ Workers shall wear high visibility clothing when working in the vicinity of PME.
- ✚ PME shall be equipped with audible warning devices and a reverse motion warning device.
- ✚ When an operator does not have a clear view to travel, banksman to be assisted.
- ✚ Operator shall be trained and competent and to hold a valid Qatar license and TPI operating certificate.
- ✚ Never use fork-lift trucks cranes or lifting equipment unless you have the necessary rights and / or proficiency.
- ✚ Never drive faster than walking speed.

8 TOOLS AND EQUIPMENTS

8.1 Hand Tools

- ✚ A hazard and risk assessment shall be performed prior to operating or using the tools and equipment.
- ✚ Tools and equipment shall be maintained in good working condition and used for which they are designed.
- ✚ Workers shall inspect tools and equipment prior to use.
- ✚ Tools and equipment found to be defective or unsafe shall be tagged “defective” or “out of order” and shall not be used until repaired or replaced.

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- ✚ Engineers/Supervisor shall ensure that workers receive instruction in the use of tools and equipment.
- ✚ Tools and equipment shall be stored and handled safely to avoid injury or damage.
- ✚ Safety devices, interlocks and guards shall not be removed or altered.
- ✚ The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight on the tools.
- ✚ All electrical hand tools shall have an identified grounding conductor installed, to ensure grounding conductor is positively connected to an effective grounding system or, they shall be of an approved design with built-in double insulation.
- ✚ Electrically operated hand tools shall only be operated by competent personnel.
- ✚ All electrical portable tools and extension board (220V or less) shall be PAT (Portable Appliance Test) done.
- ✚ All portable extension lamps shall be of 110V and PAT tested.
- ✚ Only explosion proof temporary lighting and equipment shall be used in hazardous atmospheres, i.e. NG station, H2 Generation & Storage areas etc.
- ✚ The tool shall be tested each day before using to see that the safety devices are in proper working condition. The method of testing shall be accordance with the manufacturer's recommended procedure.
- ✚ Only non-sparking tools shall be used in an explosive or flammable atmosphere.

8.2 Fixed Machine Tools

- ✚ All rotating parts of the machine shall be guarded.
- ✚ Fixed machine tools shall be operated by qualified and or competent personnel.
- ✚ Fixed machine tools shall be turned off when work is finished and shall not be left unattended when they are in operation.
- ✚ Operators of fixed machine tools shall wear close-fitting clothing. They shall not wear jewellery or other items that may contact moving parts of the machine.
- ✚ Operating controls shall be within easy reach of the operator, and shall be located or guarded to minimize the possibility of accidental operation.
- ✚ Stopping devices shall be readily identifiable and located within direct view and easy reach of the operator.

8.3 Grinders

- ✚ Only trained, experienced and competent personnel shall perform the job.
- ✚ All trained personnel likely to use grinding machine shall attend safety training on abrasive wheels.
- ✚ Ensure the correct wheel is selected as per the job and metal.
- ✚ Ensure the RPM of the wheel is matching to the machine on which it is to be fitted.

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- ✚ The RPM of spindle of the grinding machine should never exceed the maximum RPM of the wheel to be fitted.
- ✚ Ensure the correct posture and support of the job. Handle and guard should never be removed.
- ✚ Fit the wheel correctly to the machine, never force fit.
- ✚ The grinding machine should have PAT done.
- ✚ Additional PPE like face shield, mask, leather gloves, goggles, aprons and ear plug should be worn while working.
- ✚ RGPC grinding check list to be filled.
- ✚ Never exert extra pressure to do the cutting and never shock load.
- ✚ Check the wheel, machine before use.
- ✚ Read the safety instructions provided by the abrasives and equipment supplier.
- ✚ Store diamond blades in dry, frost free conditions, avoid large temperature variations.
- ✚ Ensure it is suitable for its purpose; disconnect power to the machine before fitting diamond blade.
- ✚ Examine all products before mounting and periodically during blade use for possible cracks and defects.
- ✚ Check that correct mounting devices are used and are clean, undistorted and free from burrs. Grinding wheels shall fit freely on the spindle and shall not be forced on. The spindle nut shall be tightened only enough to hold the wheel in place.
- ✚ Ensure that work rests are properly adjusted and secure, correctly designed guard is used.
- ✚ Avoid clogging and uneven wear to ensure efficiency.
- ✚ PPEs for the use grinding to be used, all flammable and combustibles to be cleared from the work area.
- ✚ Fire extinguisher and firewatcher shall be available.

8.4 Gasoline Powered Portable Tools

- ✚ Gasoline powered tools shall on be used outdoors or in areas with adequate ventilation.
- ✚ Only diesel powered tools shall be used, no petrol driven.
- ✚ Gasoline powered tools shall be inspected prior to the usage.
- ✚ No refueling shall be done while the machine is in on condition.

8.5 Chain Saws

- ✚ Chain saw operators shall be trained in their safe operation.
- ✚ Safety devices on chain saws shall be in good working order and shall not be tampered with or removed.
- ✚ An operator shall ensure the chain is stopped while walking with a chain saw.
- ✚ Chain saws shall not be operated from a ladder, a pole, a rooftop etc.

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- ✚ The hands of the chain saw operator shall not be above the shoulders when operating the chain saw.
- ✚ When operating an extendable chain saw or bush trimmer the operator shall ensure that all workers are outside of the operating range of the saw or trimmer.
- ✚ When operating chain saws the standard PPE will be supplemented, e.g. face protection.

8.6 Compressed Air and Pneumatic Tools

- ✚ Workers who use compressed air and pneumatic tools shall be instructed in their safe operation.
- ✚ Compressed air shall never be used to clean clothing or be directed against the skin.
- ✚ All compressed air systems shall have an approved safety relief device.
- ✚ All system components shall be rated to match the system operating pressure.
- ✚ All pneumatic couplings shall be equipped with safety locking devices.
- ✚ All air line connections shall be secured and checked before the air pressure is turned on.
- ✚ Pressure shall be released on air hoses and tools before they are disconnected or repaired.
- ✚ Hoses shall be checked for damage and defects.
- ✚ Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.
- ✚ Only personnel who have been trained in the operation of the particular tool shall be allowed to operate power-actuated tools.

8.7 Driving Inside the Plant Areas

- ✚ All road vehicles and mobile plant used on, or brought onto site must be maintained in a safe condition and comply with all relevant local legislation.
- ✚ All the relevant valid paperwork and documentation relating to the vehicle must be made available for inspection on request.
- ✚ All drivers and operators of vehicles and mobile plant must be trained and competent in their operation. They must hold the appropriate valid driving license to operate the equipment and the relevant documentation must be made available for inspection on request.
- ✚ Vehicles and mobile plant should be driven carefully at all times, keeping to site speed limits and obeying traffic signs and signals.
- ✚ Drivers must pay particular attention when reversing to ensure that nobody is in danger. They also ensure that the elevated boom should be lowered enough not to hit any structures. Height restrictions at various locations are also provided to prevent any damages to plant structures.
- ✚ No mobile plant (including Fork Lift Trucks) shall be used within station buildings. In any case of requirement, vehicle routes needs to be properly marked and banksman to be escorted.

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- ✚ Passengers must not be carried on any vehicle unless the vehicle is designed for that purpose.
- ✚ Any mobile plant, especially crane once its requires to operate close to the transformers areas, information and permission must be obtained from technical officer, in order to ensure safety distances from live transformers. In such situations work must not start without the specific permission.
- ✚ Reverse a vehicle into a parking space. Be attentive when reversing and get assistance if necessary.
- ✚ Secure equipment in vehicles and keep tools in chests or bags. Loose equipment and tools, for example in the back seat can easily turn into dangerous projectiles in a crash or leaving the road.
- ✚ Distribute the payload equally on trailers and don't overload it. Remember that the trailer could easily take control from the driver when breaking.
- ✚ Avoid driving into dense mist from geological vents. Show extreme care and attention if unavoidable.
- ✚ When alighting a vehicle, take care; use the hand rails and running boards.

8.8 When using bicycles on site you shall

- ✚ Check the bicycle is in good working order prior to use.
- ✚ Use safety helmet with a chin strap fastened.
- ✚ Only ride in well-lit areas at night and wear high visibility clothing.
- ✚ Report any damage to bicycles to the department supervisors.
- ✚ Only ride bicycles that have been approved for use on site.
- ✚ Not carry anything when riding (excluding the use of the basket/rack provided).

Note: For further information see **RGPC Defensive Driving- RGPC 10-10.8.**

8.9 Confined Space

- ✚ Prior to entry the following shall be undertaken:
 - A valid PTW shall be obtained for all confined space activities, therefore require the completion of a Job Safety Analysis (JSA).
 - Erect appropriate DANGER/DO NOT ENTER signage and barricading.
 - The atmosphere in the space is to be tested and confirmed to be within allowable limits.
 - A trained observer/safety watch is to be positioned outside of an occupied confined space at all times.
 - The entry point is to be barricaded whenever the observer/safety watch is not present.
- ✚ All entrants on entering the confined space shall place their Company ID card on the Confined Space Entry board and remove it upon exiting.

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- ✚ Only authorized personnel shall be permitted to enter a confined space. Training shall be provided to all workers who are required to work in confined spaces.
- ✚ Gas test shall be conducted in all confined spaces and ongoing gas monitoring requirement shall be identified by RGPC Operations and will mentioned the requirement in the confined space entry report.
- ✚ Hole watch shall be present at the entrance and log book shall be maintained or all entrants.
- ✚ The 'buddy' system shall always be used for entering a confined space and the maximum number of persons allowed to enter shall be authorized depending on circumstances.
- ✚ The use of tools inside the confined space shall be carefully controlled and non-sparking / intrinsically safe tools shall always be used where explosive vapors or flammable products are present.
- ✚ Safety Signs and barriers, as necessary at access points, to stop unauthorized access and avoid accidental entry.
- ✚ Fresh air is to be replenished by the use of forced ventilation in all confined spaces during occupancy.

Note: For further information see **RGPC Confined Space Entry Procedure RGPC 10-10.14.**

8.10 Hot works

- ✚ Welders and their helpers shall wear PPEs as determined by the hazard and risk assessment;
- ✚ Only qualified and competent worker to conduct welding and cutting activities;
- ✚ When welding or cutting, precautions shall be taken to prevent sparks or hot metal from falling onto people or flammable materials;
- ✚ RGPC hot work procedures shall be followed when performing welding or cutting operations;
- ✚ Ventilations and respiratory protection (if needed) shall be used to control exposure to welding fumes and gases;
- ✚ Welding screens are to be used in areas where others may be exposed to welding flash.
- ✚ A hot work permit should be obtained before starting any hot work on site;
- ✚ The work place must be kept clear of flammable materials;
- ✚ The welders shall not be allowed to wear clothing that is not free from grease, oil and other flammable material;
- ✚ A sufficient number of fixed screens shall be provided by the contractor to protect persons from exposure to electric arcs;
- ✚ When welding or cutting is being done on materials containing toxic or harmful substances or liable to produce toxic or harmful fumes, adequate precautions shall be taken to protect workers from the fumes, either by;

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- i. Exhaust ventilation, or
- ii. Respiratory protective equipment.
- ✚ Working areas should be inspected 1/2hr after work has ceased to ensure that smouldering is not taking place.
- ✚ Welding rods ends must be kept in suitable containers and removed at the end of each working period.
- ✚ Welding equipment must be isolated at the end of each work period.
- ✚ Trailing hoses and welding cables must be kept clear of walkways, and protected across roadways.

8.11 Electric welding equipment

- ✚ Welding machines shall be controlled by a switch mounted on or near the machine framework that, when opened, immediately cuts off the power from all conductors supplying the machine;
- ✚ Welding circuit shall be so designed as to prevent the transmission of high potential from the source of supply to the welding electrodes;
- ✚ Electrode conductors or cables shall not be excessive in length and shall not be longer than necessary to perform the work;
- ✚ Cable shall be supported so as not to create dangerous obstruction;
- ✚ Motors, generators, rectifiers and transformers in arc welding or cutting machines, and all current carrying parts, shall be protected against accidental contact with uninsulated live parts;
- ✚ Frames of arc welding machines shall be effectively earthed;
- ✚ Only heavy-duty cable with unbroken insulation shall be used;
- ✚ Circuit connections shall be waterproof;
- ✚ Welding terminals shall be adequately protected against accidental contact by enclosures, covers or other effective means.

Note: For further information see **RGPC Hot Work Procedures RGPC 10-10.06.**

8.12 Compressed Gas Cylinders

- ✚ Transport cylinders properly secured and in an upright position.
- ✚ Check cylinders have not been tampered with and full cylinders are supplied with caps. If these are missing, exchange the cylinder for a properly labelled and capped cylinder.
- ✚ Do not transport cylinders with regulators or equipment attached even if the cylinder valves are closed.
- ✚ Always use a cylinder cart to move compressed gas cylinders. Refrain from sliding, dragging or rolling cylinders.
- ✚ Gas cylinders must be secured and individually chained at all times to prevent tipping. Cylinders should not be allowed to drop nor be struck violently.

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- ✚ Cylinders must be segregated as per the compatibility classes while in storage. Oxidizers (oxygen) must be separated from flammable gases, and empty cylinders must be isolated from filled cylinders.
- ✚ Always place valve protectors on gas cylinders when the cylinders are not connected for use.
- ✚ Cylinders should be protected against tampering by unauthorized individuals and storage areas must be well-ventilated, dry, and free from corrosive materials.
- ✚ Never repaint or obscure a cylinder label, even if the cylinder is rusty, dirty or damaged. This can result in unsafe situations.
- ✚ The cylinder should not be lifted by cap. Caps used for valve protection should be kept on the cylinders at all times except when the cylinder is actually being used.
- ✚ DO NOT drop/drag cylinders as a method of transfer even for the short distance – this may seriously damage the cylinder or its valve, resulting in their failure and product release.
- ✚ Do not use bicycles/tricycles or hand carries the full/empty cylinders
- ✚ Cylinders shall not be used for rolling, supports or any purpose other than transportation and supply of gas.
- ✚ Regulator valves shall be turned off when equipment is not to be used within two hours.
- ✚ Oxygen shall not be used as a substitute for compressed air.
- ✚ Use proper PPEs for cylinder handling.
- ✚ Never insert an object such as wrench, screwdriver etc. into valve cap openings to remove a stuck cylinder cap.

8.13 Cutting Troch and Hose

- ✚ Only hose especially designed for welding and cutting operations shall be used to connect an oxy-acetylene torch to gas outlet.
- ✚ Hose lines for oxygen and for oxy-acetylene shall be of different colours and preferably of different size.
- ✚ Care shall be taken that hose does not become kinked or tangled, stepped on or run-over or otherwise damaged.
- ✚ Any length of hose in which a flashback has burned, shall be discarded.
- ✚ No hose with more than one gas passage shall be used.
- ✚ Only soapy water shall be used for testing hose for leaks.
- ✚ When torches are being changed, the gases shall be shut off at the pressure reducing regulators and not by crimping hose.
- ✚ Approved flashback devices shall be installed at the regulator end on both acetylene and oxygen cylinders.
- ✚ Torches shall be lit with friction lighters or other safe source but not with matches.

Note: For further information see **RGPC Guidelines for Compressed gas Cylinders RGPC 10-10.11.**

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9 Electrical work- general safety rules

- ✚ All electrical equipment work is bound by RGPC PTW requirements;
- ✚ Don't work with electricity / electrical equipment unless you are authorized, proficient and the consent of the electric board management;
- ✚ All portable tools, hand lamps and other portable apparatus must be connected to the system by means of plugs and sockets of an industrial type. They shall conform to the types currently in use on the site, and all portable appliances must be inspected and tagged by RGPC electrical section prior to the start of work;
- ✚ All joints must be both electrically and mechanically sound - no twisting of conductors or taping will be permitted. Temporary electrical installations, including distribution boards, cabling and switchgear shall be approved by RGPC Electrical section and must comply with International best practices prior to connection to the site supplies system;
- ✚ Routine test and inspection of all tools and equipment used by the RGPC/contractor is a mandatory by the competent person. Equipment which bear signs of damage or deterioration would not be allowed at site, if accidentally any portable equipment fall down, do not use unless its inspected and verified as safe to use by competent personnel;
- ✚ Electric heaters or radiators having exposed heating coils or elements must not be used;
- ✚ All temporary electrical installations shall be provided with earth leakage circuit breakers;
- ✚ All electrical portable tools shall be PAT tested by RGPC electrical department;
- ✚ Use of correct PPEs such as rubber gloves and rubber gum boots of tested quality where electric shock is likely to occur shall be provided;
- ✚ No electrical circuits shall ever be overloaded to the dangerous extent or beyond the rated capacity;

In all cases before commencing work, the five safety rules must be complied with:

- ✚ RGPC PTW to be obtained;
- ✚ Use suitable PPEs;
- ✚ Verify that the system is not live;
- ✚ Earth and short-circuit the live components;
- ✚ Cover or cordon off any neighboring live components.

9.1 Underground Cables

Underground cables can be dangerous, it is important to have the following in mind:

- ✚ Acquire information about cable positions and consult the parties concerned before digging. Cable detector shall be used to identify the existing underground utilities.
- ✚ Take extra care when working near underground cables.

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- ✚ Take special care with unconnected cable ends; they could be live or contain an electrical charge.
- ✚ If you come across a damaged underground cable, report to RGPC CCR and don't leave the scene before a responsible party has taken control.

9.2 Switchgear Control

- ✚ Consider that all the switchgear is live.
- ✚ Check whether all the phases have gone out and / or in.
- ✚ Always use the appropriate safety equipment, for example high voltage electrical safety gloves and eye shields.
- ✚ Never work alone with line interruption.
- ✚ Electrical switchgear room will be kept locked at all times to prevent any unauthorized entry.

9.3 400v Switches / Connecting

- ✚ Before energizing, make sure that all the work is finished and that the ends of the cable are alright. After energizing, check that everything is correctly connected by colour and direction of rotation.
- ✚ Interruptions are always executed after preparation and consultation.
- ✚ Electrical workers shall wear PPE, as determined by the hazard and risk assessment.
- ✚ All electrical apparatus shall be considered live unless they are confirmed de-energized. Test before touch.
- ✚ When two electrical workers are working within reach of each other, they shall not work on different energized phases at the same time.
- ✚ Compressed air shall not be used to clean live electrical machinery.

9.4 Requirements for barriers, guards, screens and notices

- ✚ Barricades and signage shall be placed at openings, excavations, trenches, working areas and other hazardous and restricted areas to protect workers and visitors.
- ✚ No soft barricading shall be used for any work that will not complete within that shift. Adequate hard barricades to be arranged by the worksite supervisor.
- ✚ Wherever barriers, guards and screens are erected, suitable notices shall be displayed to denote the hazard within the restricted area if required. No one must remove any barriers, guards, screens or notices without the permission of area supervisor.

9.5 The workshop safety

- ✚ Assess and take measures against possible dangers for each activity inside the workshop.
- ✚ Use the appropriate personal protective equipment and safety gear while working.
- ✚ Only work with equipment, machinery and devices if you have the necessary knowledge or experience.
- ✚ Become familiar with safety instructions before you start to work.

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- ✚ Make sure you have adequate work lighting, provide additional lightings as needed.
- ✚ Keep the work environment clean and tidy.
- ✚ Hot work areas to be protected and access to be restricted for others.
- ✚ Use protective visors and safety goggles when using machinery or work that could produce particles and splinters.
- ✚ Be careful that soap, oil and cleaning products are not left lying on the floor, which could cause accidents.
- ✚ No vehicle movements shall be permitted inside the workshop building. Designated loading/unloading area shall be used for materials handling.


9.6 Excavations and Trenching

- ✚ No site excavation shall be made without specific permission from technical officer and only in accordance with the RGPC Permit to Work. Prior to the commencement of any excavation work, the position of all underground services must be established. Work in the vicinity of underground services and method of excavation, is subjected to the approval of the safety controller.
- ✚ All excavation and trenching hazards shall be determined by a hazard identification and risk assessment.
- ✚ Where the ground, weather or nature of the work is such that a collapse of earth may occur, suitable and sufficient shoring materials and support must be provided as required.
- ✚ Don't put excavated material too close to trench banks (> 1 metre).
- ✚ Check that the bottom of the trench or connection-hole is level and that there is enough room to work.
- ✚ Take care when working around cranes, excavators and other machines.
- ✚ Take care when working near underground cables and pipes especially if they have been damaged or are apart.
- ✚ If there is contact with or damage to any underground utilities, the affected area shall be notified immediately.

Note: For further information see **RGPC Excavation Procedure RGPC 10-10.4.**

9.7 Work on or adjacent to water (E.g. Cooling Tower Area, PWR etc.)

- ✚ RGPC PTW shall be obtained;
- ✚ Life jackets shall be worn by all personnel working near to the water;
- ✚ Life buoys with rope shall be available and the number of life buoys shall not be less than two;
- ✚ All life jackets and life buoys shall be kept in good state of maintenance and so placed that such buoys shall be within the immediate reach;
- ✚ Safety harness shall be worn and hooked to a secured anchorage point.

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9.8 Working on Roof

- ✚ If it is necessary to carry out any activity on any building roof at site, before working on any roof, the roofing material must be identified for fragile material such as asbestos cement sheets and roof lights, safe access and a safe workplace provided, for example by the use of crawling ladders, crawling boards, handrails and toe-boards to stop people or materials falling from roofs. Notices, warning of overhead work, displayed at ground level when appropriate.

9.9 Floor Openings

- ✚ Substantial secure barriers must be erected around any hole. Warning notices must be posted by day and suitable lamps displayed during hours of darkness. Suitable precautions must be taken to prevent danger to persons at lower levels. All floor sections must be replaced and secured as soon as practicable.

9.10 Emergency Response

- ✚ All personnel must familiarize with the site fire and other emergencies. Appropriate fire extinguishers and other fixed firefighting equipment are available at site, which must not be tempered or obstruct.
- ✚ If you discover a fire that cannot be immediately stamped out or smothered, sound the alarm first and then tackle it with an extinguisher if you are trained and confident to do so. It is the first few minutes that count.
- ✚ Fire points, access points and roadways must be kept clear of obstructions.
- ✚ Weekly, alarms are tested at RGPC site on each Tuesday at 11am, rest of the time if fire alarm is sounded must be as genuine, leave your working area immediately and report to muster point.
- ✚ Fire alarm sound is continuous sound.
- ✚ In-case of first aid, RGPC Plant site is equipped with first-aid boxes at various locations and all RGPC staffs are trained first-aiders.
- ✚ Main site Muster point is located at North side of the Office Admin building.
- ✚ Site emergency phone number is **4430 6666**, located in Central Control Room (CCR).

Note: For further information see **RGPC Emergency Response Plan- RGPC 10-10.02**.

9.11 Fire Safety Provisions

The following are to be followed in the Plant:

- ✚ RGPC Permit to Work shall be followed;
- ✚ Readily visible signs to be posted in the fire prone/inflammable/explosive areas prohibiting smoking use of open flames and other hot work;
- ✚ Provide, maintain and regularly inspect the Fire extinguishing equipment, which shall be sufficiently provided to extinguish any probable fire;
- ✚ Adequate number of trained fire watcher for all hot work activities;

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- ✚ Properly maintain Fire extinguishing equipment and inspect them at regular intervals of not less than once in a month by the responsible person and a record of such inspections maintained;
- ✚ Portable fire extinguishers provided in the operator's cabin of machinery, material handling systems, construction equipment etc. shall be regularly inspected, maintained and replenished/refilled;
- ✚ The operators and the helpers of such equipment shall be trained in the methods operating the equipment and fighting the fire effectively;
- ✚ No smoking shall be allowed at or in the vicinity of operations, which constitute fire hazards and shall be conspicuously posted with No smoking or open flame signs;
- ✚ All means of exit shall be kept free of obstruction at all times;
- ✚ The Company Emergency Response Plan shall be followed.

9.12 Incident and unsafe act/unsafe condition reporting

- ✚ At RGPC, incident / near misses / hazard reporting system are in place. All incidents, no matter how minor it is, need to be reported immediately. Reporting of incidents is being encouraged to staff, contractors and visitor.
- ✚ Keep in mind that reporting is very important element of RGPC OHS requirements, once reported it may then be possible to prevent a similar occurrence which may result in more serious consequences.

Note: For further information see **RGPC HSE Incident management- RGPC 10-10.05**

9.13 Garden Works

- ✚ Only those that have been trained in the use of lawn mowers and trimmers, and have received information about how they can be dangerous are allowed to use them Identify and provide against dangers that could arise in each work situation (risk analysis / risk assessment).
- ✚ Use the appropriate personal protection and safety equipment.
- ✚ Use lawn mowers with safety handles.
- ✚ Check whether the safety protection and equipment on machines is intact and in place.
- ✚ Don't use broken equipment or tools.
- ✚ Turn lawn mowers off before you clean out the grass catcher.
- ✚ Turn lawn mowers off before going over obstacles.
- ✚ Clean tools and confirm that they are in good condition before returning them.
- ✚ Be aware of snakes during the hot summer seasons.

9.14 Batteries and Battery Rooms

- ✚ Signs shall be posted on battery room doors prohibiting any unauthorized personnel from entering.

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- ✚ Care shall be taken not to cause any electrostatic discharge while performing maintenance or work on batteries.
- ✚ Work shall be limited to absolutely necessary observation and required maintenance task.
- ✚ Spilled electrolyte shall be cleaned up immediately according to proper spill control procedures.
- ✚ All maintenance on batteries shall be performed with insulated tools.
- ✚ Safety shower/eye wash shall be available in the battery rooms.

9.15 Radiation Safety

- ✚ All necessary health, safety and environmental procedures shall be established and employed to protect personnel and the surrounding environment during on-site and field works.
- ✚ The Radiography contractor shall be licensed and comply with the Executive Regulations of the Decree- Law No. 31 of Year 2002 and its amendment on 2006.
- ✚ Concerning Radiation Protection and Guidelines of Ministry of Environment and provide the following licenses issued by the Ministry of Environment:
 - License of import/export of isotopes.
 - License for location where to store isotopes.
 - License for storage of isotopes.
 - License for utilization of isotopes.
 - Licenses for personnel to work with isotopes (individual licenses including Radiation.
 - Protection Officer – RPO).
 - License for transportation of isotopes.
- ✚ No untrained persons may remove or in any way interfere with, radioactive substances.
- ✚ A certified RPO (Radiation Protective Officer) to supervise and monitor the entire NDT activities. The copy of the certificate to be submitted to RGPC prior to start the activity.

Note: For further information see **QP/RLC Standard for Non-Destructive Testing- QP-STD-R-008-2.**

10. RGPC Permit to Work

Permit to Work (PTW) is a type of Safety Document. It allows RGPC authorized person to carry out specific work at a certain time and place, and sets out the obligatory precautions that must be implemented in order to guarantee control over risks of accidents and occupational diseases throughout all phases of preparation and implementation of the work.

RGPC has four types of PTW;

1. Cold Work Permit
2. Hot work permit
3. Confined Space permit

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4. Electrical permit

The main supplementary certificates and attachments associated with permits are:

1. Permit Revalidation Sheet
2. Lock Out/Tag Out Order
3. LOTO Isolation List
4. Temporary Tag Out Release form
5. Item Release Form
6. Confined Space Access Register
7. Confined Space Entry Report and Gas monitoring sheet
8. Fire System Impairment Form
9. Excavation Form Report
10. Permit to Work Audit Checklist
11. Permit to Work Monitoring & Audit
12. Lock Breaking Approval.
13. Approach to Exposed High Voltage Conductor/Insulators
14. LOTO Verification
15. Suspension Record
16. Permit Extension
17. Permit Transfer
18. Job Safety Analysis/Risk Assessment
19. Last Minutes Risk Assessment
20. Method Statement
21. Relevant drawings/P&IDs etc.







11. Office work

11.1 General Safety Rules

-  Promptly clean up or let someone clean up spillages or dirt from the floor.
-  Close drawers and cupboard doors after use.
-  Never use office chairs on wheels, shelving or unstable tables instead of step ladders.
-  Take care when using step ladders near corners or doors.
-  Let professionals repair electrical plugs and devices.

11.2 Display Screen Equipment Safety

11.2.1 Desks and chairs

-  Become familiar with the office chair settings.
-  Set the height of the chair back so that the curvature is at the small of the back.
-  Sit with a straight back and use the back of the chair.
-  Frequently change your position, for example adjust the seat angle if possible.
-  Stand up or use the wheels and rotate the chair when getting items from nearby shelving.
-  Lift objects with both hands and avoid twisting the back.

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11.2.2 Monitors and eye protection

Position the monitor so that:

- ✚ Light from the windows or lights doesn't shine straight into the eyes or reflect off the screen.
- ✚ The top edge of the screen is at eye height.
- ✚ The screen is around an arm's length from the body (45-60 cm).
- ✚ The screen is in front of the middle of the body.

11.2.3 Eye protection

- ✚ Have a regular eye and vision checkup.
- ✚ If you use glasses make sure that they are suitable for working with screens.
- ✚ Take regular short breaks and look away from the screen to rest the eyes.
- ✚ Reduce the difference in brightness between the environment and the screens (adjust lighting, adjust the brightness on screen).

11.2.4 Mouse, keyboard and document holders

- ✚ Position the keyboard in front of the middle of the body.
- ✚ Position the mouse to the side, at the same height as the keyboard.
- ✚ Use both the left and right hand for the mouse if you feel physical discomfort that could be connected to mouse use.
- ✚ Let your elbows rest close to your body when typing.
- ✚ Rest the forearm on the area in front of the keyboard.
- ✚ Have wrists in a neutral position.
- ✚ Use keyboard shortcuts rather than the mouse if possible.

11.2.5 Manual Handling- LIFT IT CORRECTLY

- ✚ Avoiding the need for manual handling by either redesigning the task or automation. Introducing mechanical aids to assist in reducing risks and ensuring they are measures in place for regular maintenance.
- ✚ Identifying the need for employee training in good lifting and handling techniques. Use team-handling techniques.
- ✚ Making the load lighter, smaller, easier to manage, easier to grasp and any change that allows the load to be held closer to the body.
- ✚ Improving the layout of the task by allowing adequate room to maneuver and avoiding operations, which involve twisting or stooping.
- ✚ Ensuring floor surfaces are well-maintained and free from obstacles and spillage. Ensuring that there is adequate lighting.
- ✚ Consideration must be made for members of staff with disabilities or particular health problems and reasonable adjustments to manual handling operations to ensure disabled

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persons are not at any disadvantage compared to non-disabled persons. This may include limiting the number, size or weight of loads handled and/or providing suitable manual handling aids.

- ✚ Ensuring the use of lifting equipment is appropriately, supervised, planned and carried out safely.

Note: For further information see **RGPC Manual Handling- RGPC 10-10.16.**

11.2.6 Lighting and ventilation

- ✚ All practical measures shall be taken to prevent smoke, fumes etc. from obscuring any workplace or equipment at which any worker is engaged;
- ✚ Adequate and suitable artificial lighting shall be provided where natural lighting is not sufficient and 110V shall be used for all temporary lighting connections;
- ✚ For confined space activities only 24V/110V lights to be used.
- ✚ Where necessary to prevent danger to health from air contamination by dust from the grinding, cleaning, spraying, or manipulating of materials or objects, arrangements shall be made to limit the concentration of the pollutants by thorough ventilation, and dust generated due to movement of earthmoving machinery and other construction equipment, by spray of water in the area from time to time;
- ✚ Adequate ventilation by the circulation of fresh air shall be maintained in such places where the concentration of pollutants is likely to affect the health of the workers.

11.2.7 Slip, trip and fall hazards:

- ✚ All passageways, platforms and other places shall be free from accumulations of dust, debris or similar material and from other obstructions that may cause tripping;
- ✚ Any sharp projections or protruding nails or similar projections which may cause any cutting hazard shall be removed or otherwise made safe by taking suitable measures;
- ✚ No one allowed to use the passageway, or a scaffold, platform or any other elevated working surface which is in slippery;
- ✚ Wherever the employees are working near the water (e.g. Cooling Tower basin, Water Reservoir etc.), they shall use the life jackets and life buoys stand by.

12 Occupational health

12.1 Toxic Substances and Hazardous Materials

- ✚ Only competent workers shall handle hazardous chemicals.
- ✚ Workers handling chemicals shall be trained to respond to any emergent condition.
- ✚ MSDS shall be available at chemical handling area and shall be communicated to all workers.
- ✚ All chemicals in the workplace shall be stored in accordance with RLC/Qatar Civil Defence regulations/requirements.

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- ✚ Emergency shower and/or eyewash facilities shall be available at all work locations where hazardous chemicals are used and/or stored.
- ✚ Become familiar with safety instructions and danger symbols on packaging before you use the substance.
- ✚ Use appropriate personal protection and safety equipment when handling and cleaning substances.
- ✚ Don't use toxic substances marked with a skull unless you have the necessary permission.
- ✚ Keep substances in closed original packaging.
- ✚ Follow instructions on mixing substances.
- ✚ Make sure of ventilation and air conditioning when handling substances.
- ✚ Follow the MSDS.

Note: For further information see **RGPC Bulk Chemical Safe handling Procedure-RGPC 10-10.12.**

12.2 Ergonomics

- ✚ Workers who are at risk of musculoskeletal injury (MSI), Repetitive Strain Injuries (RSI) shall receive an ergonomic related training.
- ✚ An ergonomic assessment shall be conducted at employee work area/station.
- ✚ Supervisors shall ensure tools, equipment and physical adjustments/adaptations are provided to minimize the potential for MSI/RSIs.
- ✚ Workers shall be instructed in the applicable controls as per the risk assessment or JSA.

12.3 Noise and Hearing Protection

- ✚ A noise survey shall be conducted by safety department and result of the survey shall be communicated to all employees on regular basis.
- ✚ Adequate measures shall be taken against the harmful effects of an excessive noise.
- ✚ Workers shall be provided and trained in the use, selection and maintenance of hearing protection.
- ✚ Workers shall wear the hearing protection provided where the noise levels exceeds 85dBA.
- ✚ Where the noise conditions exceed the OH&S guidelines, the Company shall ensure that;
- ✚ Audiometric testing is conducted as per RGPC HR policy
- ✚ The decibel level is posted at work locations where noise levels exceed 85dBA.

12.4 Corrosive substances

- ✚ All corrosive substances, including alkalis and acids, shall be stored and used in such a manner that it does not endanger the employee;
- ✚ Suitable protective equipment shall be used during handling or use of such substances;
- ✚ Personnel shall be trained by concerned department following the MSDS.
- ✚ MSDS shall be displayed at the storage locations.

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- ✚ Eye wash/Shower shall be available for emergency use.
- ✚ Proper housekeeping shall be maintained at all the times.

12.5 Heat Stress

- ✚ Provide heat stress training to exposed employees including symptoms of heat stroke, the precautionary measures and the emergency procedure.
- ✚ Provide fans or air cooler for good ventilation.
- ✚ Strictly follow the heat stress flagging system. Be familiar with heat index chart and respected flag colours.
- ✚ Close monitoring of supervisor/in charge in each activity in worker condition and do not allow working alone.
- ✚ Provide cool shaded area for resting and adequate supply of cool potable water during work at all times.
- ✚ Avoid work under direct sunlight wherever possible. Take break in regular intervals and rest in cool area.
- ✚ The split job tasks or rotation between workers for physically demanding tasks.
- ✚ Schedule the hottest jobs for the cooler part of the day or nights, where possible.
- ✚ Avoid hot beverages and those that contain caffeine such as tea, coffee and sodas. Do not take any form of Salt Supplements.
- ✚ Stop work as and when required in terms at Heat Index indicator.
- ✚ Report all Heat Stress related incidents.

Note: For further information see RLC Heat Stress Guidelines (QGL-CHH-001) - RGPC 10-10.9.

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RGPC SAFETY HAND BOOK FOR STAFF AND CONTRACTORS

RECEIPT

I declare that I have read and understood the health and safety requirements of Ras Girtas Power Company and I am aware of my health and responsibilities in the workplace.

Name:

Company:

Staff Number:

Department:

Designation:

Signature: