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COMPANY HEALTH, SAFETY & ENVIRONMENT PLAN

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			HSE Engineer	Corporate Manager-HSE
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INTRODUCTION

ALGHANIM GROUP OF SHIPPING & TRANSPORT (AGST) is one of the most important integrated shipping companies in the Kuwait. In this business it has a strong edge and leading international market positions.

ALGHANIM GROUP OF SHIPPING & TRANSPORT objective is to create new value to meet its shareholders expectations through the continuous improvement of Transportation & Shipping of Goods through the attention to the needs of its employees and the commitment to a sustainable growth pattern also encompassing the careful assessment of the environmental impact of its activities and the development of innovative and efficient technologies.

To achieve this objective **ALGHANIM GROUP OF SHIPPING & TRANSPORT** relies on the managerial and technical capabilities as well as the continuous development of its workforce, and on an increasingly lean and entrepreneurial organization.

The objective of this HSE plan is to promote Health, Safety & Environment of person working with AGST and prescribe certain rules, procedures and safe practices in order to create a working environment free of condition and factors that might contribute to an accident or injury /Illness. The specific HSE plan will provide guide line for safe execution of project.

"HSE IS EVERYBODY'S BUSINESS"



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POLICIES



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COMPANY HSE POLICY

It is policy of **ALGHANIM GROUP OF SHIPPING & TRANSPORT** to carryout all its work in away that provides healthy and safe working practices and avoids risks of injury to anyone as a result of the activity for which the company is responsible.

The overall responsibility for Health, Safety & Environment rests at the highest level, however, all individual employees have important responsibility towards HSE and must participate in carrying out policy. Appropriate training, supervision and information are provided to encourage and enable to carryout their duties safely.

Regular Inspection and monitoring of the activities is undertaken and accidents or incidents are investigated promptly so that appropriate action is taken to prevent from reoccurrence. Unsafe work practices by an individual can often lead to accidents even in safe working environment.

It is therefore our goal to eliminate both unsafe working condition and unsafe work practices.

It is the policy of our company to;

- ✓ Comply with all regulations governing Health, Safety & Environment at the job site.
- ✓ To take expedient actions to correct or isolate unsafe conditions or work practices.
- ✓ To promote Health, Safety & Environment awareness.
- ✓ Hold each employee accountable for their individual responsibility for Health, Safety & Environment
- ✓ Every reasonable effort will be made to assure that employees can accomplish the safe completion of assigned tasks.
- ✓ No task is so important, nor so urgently, that we cannot take the time to do it safe.



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SPECIFIC OBJECTIVES OF THE COMPANY HSE POLICY

Prompt accident notification investigation and reporting.

The establishment and maintaining of Healthy , Safe and Productive Working Environment.

Protection of property equipment and material from all down grading incidents.

Protection of Environment by removing all hazardous wastes and by proper house keeping.

The integral part of effective management in Shipping & Transport industry is awareness that high standards of Health, Safety & Environment is required.

The HSE committee should be established at each working location in order that, full consideration can has been taken place between employees and management to ensure that employee derive the maximum advantage from Health, Safety & Environment standards, set in herewith.

There should not be any employee to be found to have been negligent in the matter of Health, Safety & Environment or have contributed to accident through personnel neglect, then that person will be subjected to a Disciplinary Procedure which could result in dismissal.



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ZERO ACCIDENT TOLERANCE POLICY

All endeavors to adopt a zero accident tolerance attitude to any occurrence threaten the Health, Safety & Environment of our work force and the general public. The management is committed to achieving and sustaining "ZERO ACCIDENT TOLERANCE" through continues improvement practices.

Objectives:

- ❖ No Workplace Injuries and Occupational Diseases.
- ❖ No Accidents.
- ❖ Promote HSE as an integral part of our day –to-day activates
- ❖ Spread Health, Safety and Environment plan throughout the organization.
- ❖ Enhance employee awareness and involvement in Health, Safety & Environment program implementation.
- ❖ Optimize the use of continuous improvement practices as the basis for "Zero accident tolerance" initiative.
- ❖ Eliminate all Environmental impacts aspects.



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RESPONSIBILITY OF INDIVIDUALS

AGST assigns the utmost importance to HSE and accident prevention to ensure that all employees are provided a Safe and Healthy Working Environment. The success of the policy requires all levels of personnel, from Management and employees, to become totally supportive and to develop a thorough understanding of HSE Regulation or procedure as it pertains to their respective jobs.

The following responsibilities are assigned to accomplish this objective:

Corporate Manager - HSE:

The Corporate Manager - HSE will be responsible for the development, co-ordination and maintenance of HSE system ensuring all personnel are fully supported with guidance, training equipment, documentations, inspections and audit covering all Health, Safety & Environment and welfare matters. He has the authority to stop any activity which contravenes, good HSE practices that jeopardize the safety of the personnel.

Operation Manager:

It is natural that the HSE Programs are part of the responsibility of the Operations Manager who is in charge of activities at the Company. It is recognized that a strong support and active participation by the Operation Manager is essential.

The Operation Manager

- ✓ Assures that the subordinates have a thorough understanding of their HSE responsibilities
- ✓ Motivates the Organization to result in the maintenance of high quality HSE on all construction/work sites.
- ✓ Provides the HSE Section with necessary information required to evaluate the effectiveness of HSE Programs.
- ✓ Establishes control to assure uniform performance in compliance with HSE Program elements.



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Health, Safety & Environment communication with clients:

Health, Safety & Environment shall be the first item discussed at all management and weekly client meetings. The meetings are to be attended by all levels of key members of the Company, the client representative and the Health, Safety & Environment Corporate Manager. Details are to be recorded in each meeting. All Engineers shall concentrate more on Health, Safety & Environment aspects; they should be waiting for the matters to be discussed in meeting regarding Health, Safety & Environment violations.

Subcontractor:

Subcontractor undertaking site work will have to submit a Health, Safety & Environment plan or proceed according to company Health, Safety & Environment manual by which the scope of work to be performed. Subcontractor should study well the company manual and follow the Health, Safety & Environment procedures, give adequate instructions to their employees regarding Health, Safety & Environment.

AGST RESPONSIBILITIES

ALGHANIM GROUP of SHIPPING AND TRANSPORT (AGST) working on the Project shall have in effect a HSE plan and shall designate a HSE Representative.

Corporate Manager HSE shall be responsible for initiating the Health, Safety & Environment Program, ensuring that job site Health, Safety & Environment requirements and procedures are being accomplished, conducting Health, Safety & Environment inspections of work being performed, conducting weekly HSE meetings with our employees and submitting a weekly report to CLIENT Project Health, Safety & Environment Department as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs. The Corporate Manager HSE will also be responsible for a continuing survey of its operations, to ensure that the probable causes of injury or accidents are controlled and that operating equipment, tools and facilities are used, inspected and maintained as required by applicable HSE regulations.

A. GENERAL

AGST management at all levels is dedicated to assure that its employees and others are provided a safe and healthy place to work on each of its projects. AGST shall be directly responsible for initiating and maintaining a positive Health, Safety & Environment effort to prevent his employees from working under conditions which are unsafe, unhealthy or unsanitary.

The Health, Safety & Environment program has been prepared to assist each employee in satisfying its moral, contractual and legal accident prevention responsibilities, in such a manner that a safe, efficient operation is assured. It incorporates the Health, Safety & Environment requirements and CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs, and complies



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with recognized standards such as OSHA (OSHA, CFR 1926 for Construction) and applicable ANSI and industry standards.

AGST will under no circumstances put any of his own employees at risk or jeopardize the health and Health, Safety & Environment of any employee of other project participants working on the project.

AGST HSE personnel shall see that there is an adequate Health, Safety & Environment procedure for the specific job to be done and that all procedures are well understood and followed. AGST will post Health, Safety & Environment signs, posters and banners at work areas promoting Health, Safety & Environment and informing workers of dangers and hazards associated with the work.

B. RESPONSIBILITIES

◆ HSE Training

- * AGST shall Provide HSE Trainings to all employees working under AGST as per their specific jobs and Additional Trainings will be provided in regards of HSE on monthly basis.

◆ HSE Personnel

- * AGST shall designate a full time qualified HSE representative on site with at least five years field experience to be responsible for the Health, Safety & Environment and Health of its employees. AGST shall submit HSE representatives name and resume for Owner's review and approval prior to mobilization. The HSE representative will be subject to a 90 days trial period and CLIENT reserves the right to request his replacement at any time at no cost to CLIENT, should he, at the opinion of CLIENT, not perform up to CLIENT's and project expectations.
- The HSE representative shall coordinate accident prevention as it applies to employee, industrial, public Health, Safety & Environment, fire protection and prevention, and the equipment and property applicable to the field or operation to which he is assigned. Regarding the project's Health, Safety & Environment and Accident Prevention Program, the project HSE representative reports directly to the CLIENT Manager. He also reports to the CLIENT HSE representative to ensure teamwork and integrated Health, Safety & Environment management and compliance is achieved and will participate in CLIENT and project HSE initiatives and direct his employer to this regard. The HSE representative is not a part of the Project's line organization, and with the exception of work performed within his office, he does not exercise direct operational control of any project work.
- The HSE representative keeps a constant check on the methods used by supervisors and employees to prevent Health, Safety & Environment violations. He has the authority to correct and instruct employees concerning the violation of Health, Safety & Environment rules. He also has the authority to stop work in situations of imminent danger, situations where serious property or equipment damage may result, in situations where repeated Health, Safety & Environment deficiencies have not been corrected. He also has the authority to stop work in situations where a work area has achieved less than 85% compliance score in the Weekly Area HSE Assessment. Apart from issuing a Stop Work Order, the work stoppage and reasons will be noted in the Health, Safety & Environment Discrepancy Logbook located in the area.
- Should the HSE representative witness an unsafe work situation which requires application of the project's disciplinary program, he must bring this to the attention of the appropriate project supervisor, and the supervisor is responsible for carrying out the necessary corrective measures.



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In cases where people are guilty of Health, Safety & Environment violations the Health, Safety & Environment representative may remove the violator's project ID badge and escort the person(s) off the site. The HSE representative may advise or recommend the type of reprimand or discipline to be applied, but he should never administer the discipline himself. If appropriate discipline is not forthcoming, he should follow the chain of command until appropriate corrective measures and discipline result.

- Competent field HSE officers designated by AGST shall make frequent and regular daily inspections of the jobsite and work areas. AGST shall furnish each Health, Safety & Environment officer red shirts for identification purposes. All HSE officers on the project shall wear uniform shirts and therefore AGST shall seek the approval from CLIENT as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs, prior to purchasing the red shirts.
- To eliminate the possibility of field HSE officers being intimidated by other employees in the accommodation facilities, AGST shall segregate the Health, Safety & Environment officers from others living quarters.

◆ **Work Stoppage**

In the event of a work stoppage based on Health, Safety & Environment deficiencies, the AGST shall immediately remove the workforce from the work area and correct the Health, Safety & Environment deficiencies by allowing only the people in the area that are competent to make the area safe. AGST shall ensure no other work is being performed during this time. Should the estimated time from the outset to make the area safe be longer than four hours or where life threatening/imminent danger situations exist, then the area shall be barricaded or roped off and a sign placed with the wording "Unsafe Area – Authorized Access Only". Before the workforce is allowed back in the area, AGST shall ensure the area is re-inspected by AGST's HSE representative and field supervisor and note corrective actions taken in the Health, Safety & Environment Discrepancy Logbook and declare the area safe for work by signing off in the logbook.

If site wide Health, Safety & Environment stoppage due to deficiency should occur and shut-down has to be conducted this should be on EPC cost.

In case of increasing incidents, recognized trends or other reasons, the CLIENT retains the right to call for site wide Health, Safety & Environment Stand Downs at no cost.

◆ **Weekly Area Health, Safety & Environment Assessment Program**

AGST management shall implement the CLIENT's Weekly Area Health, Safety & Environment Assessment program. Areas will be determined according to field supervisor area of responsibility and craft. CLIENT, AGST management, supervisors and field HSE officers shall actively participate in the program and conduct weekly Health, Safety & Environment assessment audits of all the work areas to quantitatively evaluate and document the assessment. CLIENT will schedule Weekly Area Health, Safety & Environment Assessments with the cooperation of AGST. Unsafe acts and/or conditions noted during daily inspections and weekly audits shall be corrected immediately. CLIENT reserves the right to make recommendations. The following further outlines the program:

- The assessment will be scored by reducing the total possible points in a category by one point for each deficiency noted. In the event an imminent danger violation, a life threatening situation or when work is being performed without a valid permit is observed the imminent danger penalty will be applied reducing the overall assessment score by 10 points for each.



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- AGST shall immediately correct all deficiencies noted on the assessment within 24 hours or provide a written explanation as to why a deficiency was not corrected.
- AGST shall provide a written corrective action plan, signed by AGST management within twenty-four hours of receipt of the assessment to CLIENT's management for a Health, Safety & Environment assessment scoring below 80%
- AGST shall shut down respective work activities and remove employees from the project associated with a Health, Safety & Environment assessment scoring 80% or below. Work will not resume until such time a meeting with AGST's Senior Management and CLIENT's management is scheduled and conducted and all deficiencies noted corrected.

◆ Discipline

AGST will implement a disciplinary policy and procedure and include the requirements as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs. Apart from AGST's own internal disciplinary procedure, persons guilty of Major Health, Safety & Environment violations will be penalized for each violation after it has been determined through counseling that the violator blatantly ignored a Health, Safety & Environment rule. Should it be determined through counseling that the person violated a Health, Safety & Environment rule without knowing better, and then he must be given a warning.

Persons will be dismissed from the project on the third Major violation. Persons will immediately be dismissed from the project site, regardless of the number of account of Minor violation, should they be guilty of any of the following serious Health, Safety & Environment violations:

- Driving a vehicle in excess of the stipulated/posted speed limit on the project,
- Altercation (both parties will be dismissed).
- Disregarding barriers (unauthorized access into an area marked as being unsafe or unauthorized access into a restricted area.)
- Energizing or de-energizing a power source without proper authorization.
- Smoking in vehicles, offices and any other unauthorized area.
- Operating or cause to operate equipment without a valid inspection and color coding.
- Violating Environment Conditions and Throwing wastes here and There.

Should a person be dismissed from the project then the Health, Safety & Environment Committee shall review the case and make a final decision whether the person should be allowed back on the project after appropriate disciplinary actions have been taken. In addition specific instruction, coaching and or training may be required prior to allowing the person to work on the project again.

◆ Hazard Recognition

- AGST shall ensure a safe working plan for each new job assignment is developed and analyzed for potential hazards by using the Job Health, Safety & Environment Analysis. The Job Health, Safety & Environment Analysis is also part of the supervisor's duties and responsibilities as outlined in the Supervisors Health, Safety & Environment Logbook.
- AGST shall instruct each employee on the jobsite in the recognition and avoidance of hazards and unsafe acts and/or conditions applicable to its work environment to control or eliminate injury or illness. AGST shall enforce the project and statutory HSE rules on its employees.
- AGST is responsible for providing and requiring the use of appropriate personal protective gear and



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equipment in all operations where there is an exposure to hazardous conditions. All records shall be maintained at a location accessible to CLIENT.

◆ Hazard Communication

AGST shall provide CLIENT with a copy of AGST's Hazard Communication Program and the Material Health, Safety & Environment Data Sheet(s) (MSDS) for the chemical(s) or substance(s) intended to transport from the site. A bookcase, centrally located, will be dedicated for this information. AGST is responsible for keeping this information current. AGST is responsible for maintaining a copy of AGST's Hazard Communication Program and Material Health, Safety & Environment Data Sheet(s) onsite for AGST's own reference and employee training. A complete set of MSDS copies shall also be kept at AGST's medical facilities and the medical staff must be fully familiar with the contents thereof. The legal storage, use and disposal of wastes of any hazardous chemicals or substances are the responsibility of AGST, subject to review and approval by Client.

◆ Incident Investigation and Reporting

- AGST shall immediately report all incidents involving injuries that require medical treatment including first aid, fatalities, major equipment damage and chemical spillage to the CLIENT as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs. AGST shall report all incidents verbally to CLIENT and CLIENT's HSE manager as soon as possible but within 3 hours of the incident and shall submit a short written notification within 8 hours of the incident to CLIENT with the basic detail and submit a complete investigation report not later than 5 days after the incident.
- All incidents and accidents will be properly investigated by an investigation committee comprising of AGST's Construction Superintendent, Supervisor responsible for the injured worker or incident, the injured worker (where possible), AGST's Health, Safety & Environment officer, a representative of CLIENT and other representatives of the CLIENT, AGST who are familiar with the HSE practices involved and who can contribute to the analysis of the incident and make recommendations for action to prevent recurrence.
- Incidents to be investigated include but are not limited to all near miss incidents, all first aid cases, all injuries requiring medical treatment, fatalities, all property damage, all equipment damage, etc. to determine causes and to implement corrective measure to prevent the same from happening. CLIENT has the right to participate in the investigations, to make recommendations and to request reinvestigation if not satisfied with the results of the investigation or corrective measures/actions taken/implemented.
- AGST shall ensure the incident/accident scene is not disturbed until after the investigation. Investigation shall begin promptly after the incident/accident. Where applicable and with proper authorization, photographs may be taken of the scene of the incident as well as any equipment involved in the incident. The results of the investigation together with the Root Cause Analysis of the incident and the committee's recommendations for preventative action(s) shall be submitted to CLIENT within 5 days after the incident occurred. AGST shall also compile a short summarized version (flash report), of all the investigation and submit to CLIENT to be distributed to other project participants as learning tool to prevent the same from happening.
- AGST shall also review and analyze all injuries, including first aid cases, to establish trends that may indicate deviations from established work standards and safe working procedures/practices. AGST shall take appropriate corrective action and submit report as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs, which may publish the results of the analysis.
- AGST shall classify first aid, recordable, restricted and days away from work injuries and injury incidence rates in accordance with OSHA Record-keeping Guidelines and ANSI Standard Z16.4-



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1997. Incidence rates will be based on 200,000 man-hours worked.

- AGST shall issue to CLIENT a detailed Weekly HSE Report which include all related tabulated Health, Safety & Environment statistics and graphs to include all incidents/accidents during the reporting period, hazards observed and corrective actions to deal with them, achievements, initiatives, training, non-compliance issues, programs implemented and activities planned for the next week. AICTCC shall issue to CLIENT a Monthly HSE Report not later than the 5th day of each month similar to the weekly report above but in addition include an objective overview of the past month's activities and activities planned for the next month.

◆ **Failure to Correct Unsafe Conditions**

- If AGST fails to correct the conditions described in the Weekly HSE Assessment Report and HSE audits within the time specified, a second report will be issued along with a letter requesting compliance.
- If no action is taken by AGST in the time set forth in the second Notice, a meeting shall be scheduled with the AGST's management, the CLIENT's Project Manager and HSE Manager. This meeting should result in a documented agreement of the AGST's intended action and timing to correct the violation(s).
- Failure to reach an agreement, or failure to correct the violation, shall be documented, and the matter referred to the appropriate personnel for resolution up to and including possible termination of contract.

◆ **HSE Penalties**

HSE is a prime concern and responsibility of CLIENT and AGST. CLIENT's Health, Safety & Environment Review Committee will investigate poor Health, Safety & Environment performance where areas have achieved 85% and below for two consecutive weeks in the Weekly Area Assessments to determine the cause for the poor performance. AGST will be advised in writing of the committee's findings.

Should the HSE Committee determine that continuous poor HSE performance is a result of inadequate, poor or insufficient field supervision and/or Health, Safety & Environment personnel, then CLIENT will instruct AGST to replace the supervision and/or HSE personnel or, provide additional field supervision and/or HSE personnel. AGST shall adhere to the findings of the committee and provide the replacement or additional field supervision and/or HSE personnel within seven days of the written notification.

AGST may request the HSE Committee in writing to review the need for additional field supervision and/or HSE personnel and be relieved from the requirement for additional personnel when AGST has achieved consistently above 90% in the Weekly Area Health, Safety & Environment Assessments for a minimum period of two months.



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◆ **Instruction and Training**

AGST shall ensure employees undergo instruction and training as required by CLIENT and also attend CLIENT's training sessions where necessary. Records of training conducted and attended shall be maintained for review by CLIENT, as applicable. Examples of such required training are:

- Meetings – All meetings (staff, progress and others), shall have a portion of the agenda devoted to Health, Safety & Environment and accident prevention
- Work Assignments – All work assignments must include specific attention to Health, Safety & Environment. Follow-up monitoring is required and additional training given where required in order to prevent accidents.
- Specific Instructions – Owner requires that employees performing specific tasks are trained in the safe performance of the job or operating specific equipment is trained in its usage.
- Craft – Craft will be trained in the Health, Safety & Environment aspects of their job and will attend a training session of 8 hours minimum. Examples are: - welder to be trained in Hot-work Health, Safety & Environment, steel erectors, scaffold builders and other required to work at an elevation to be trained in elevated work Health, Safety & Environment, people required to work in confined spaces to be trained in confined space and vessel entry Health, Safety & Environment, crane operator and riggers and signalmen to be trained in crane operation and rigging Safety.
- Supervisors – All field supervisors shall attend Owner's 40 hour Health, Safety & Environment Leadership Training course. Health, Safety & Environment standards and requirements will be dealt with in detail. The training also includes the mandatory use of the Supervisors Logbook, Area Discrepancy Logbook and Weekly Area Health, Safety & Environment Assessments.
- Indoctrination – AGST shall ensure all employees receive initial Health, Safety & Environment indoctrination training prior to the start of work on the project to ensure they understand the general Health, Safety & Environment rules and requirements and annually thereafter. This training shall be a pre-requisite to receiving an ID badge to gain access to the site.
- Additional Indoctrination – AGST shall ensure all employees undergo additional Health, Safety & Environment indoctrination and training when major changes are coming or are experienced such as the activities and conditions associated with pre-commissioning.

◆ **Fire Prevention**

Fire Prevention

- a) Through the duration of this Contract, AGST shall be responsible 24 hours per day, 7 days per week for fire protection in its work and operational areas, including offices, tool rooms, and storage areas. AGST must provide approved fire-fighting equipment at the work places and offices in adequate quantities and its employees must be trained in the usage of such equipment.
 - b) AGST shall prepare a monthly Health & Safety Statistical report and submit it to the Client every month. It shall summarize:
 - All fires occurring at the jobsite during the month.
- All fire hazards observed at the jobsite during the month, and the corrective actions planned or taken to deal with them.



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- Visits and audits by government officials and inspectors.
 - c) AGST shall at a minimum comply with the following requirements:
- A permanently mounted extinguisher shall be placed on each item of mobile industrial equipment having a diesel or gasoline engine.
- All fire prevention/fire fighting equipment shall be inspected monthly to ensure they are in a good working order and replaced if faulty. Records of inspections shall be maintained for review by CLIENT, as applicable.
- Fuel containers shall be of metal and equipped with an air-vent.
- Fuel trucks will be properly grounded when refueling equipment. Equipment shall be switched off during refueling.

Fire Prevention / Fire Fighting Plan

AGST's overall jobsite fire prevention / fire fighting plan shall describe how AGST proposes to discharge its duties and shall also include the following topics at a minimum:

- An analysis of the major fire risks that must be protected against and the method of protection.
- Provision of fire prevention surveillance, fire watch, alarms, smoke detectors and other warning measures.
- The fire prevention training program.
- Schedules and checklists for fire prevention inspections.

◆ Noise Control

AGST will ensure all necessary precautions to control noise and in case of over noise, Precautionary Safety methods like Ear Muffs, Ear Plugs will be provided to employees working near to the particular area.

◆ Clothing Requirements

- Coverall shall be worn at all times. Sleeveless shirts and tank tops are not permitted.
- Long pants are required.
- Steel toed leather Health, Safety & Environment shoes with shoelaces will be worn at all times. Folding in of the back part as to convert to a slip-on shoe will not be permitted. Sandals, tennis shoes, or any other street type shoe will not be permitted.
- A hard hat or hair net as appropriate shall protect hair that could come in contact with or be caught in machinery.

◆ Personal Protective Equipment

- CLIENT Approved hard hats meeting specifications contained in ANSI (American National Standards Institute) Z89.1-1981 and/or Z89.2-1971 will be worn at all times when outside offices and vehicles. Hard hats shall also be worn when employees are engaged in activities requiring goggles, welding hoods and shields and face shields.
- CLIENT approved Health, Safety & Environment glasses, complying to ANSI Z89, with side shields are required in plant and construction areas at all times when outside offices and vehicles. Dark



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Health, Safety & Environment glasses may be worn during daytime. Clear or amber glasses must be worn at night or in poor illuminated areas during daytime.

- CLIENT Approved eye and face protection is required as follows:
 1. Goggles, are required and shall be properly worn in the area of operations where rigging, lifting etc., are being performed.
 2. Prescription glasses must be approved Health, Safety & Environment glasses or approved eye protection shall be worn. Use of contact lenses shall require pre-approval from CLIENT and shall be considered only in cases where vision correction cannot be achieved by the use of Health, Safety & Environment glasses.
- Protective earplugs must be worn when noise levels in working areas exceed specified Health, Safety & Environment limits of 85dB, or as directed by CLIENT. AGST shall measure the noise levels of each area where noise is present to determine noise levels and each area where the noise level exceeds 85dB.

◆ **Ladders**

- All ladders shall comply with the requirements as per OSHA CFR 1926 for Construction.
- Makeshift wooden ladders and painted wooden ladders shall not be used.
- Ladders shall be inspected weekly by a competent person. Ladders shall be tagged and with the same tags used for scaffolds.
- When not secured at the top, ladders will be properly anchored at the base to prevent the footings from slipping and a second person shall hold the ladder firm in place while being used.
- When ladders are being used for accessing at the same point more than once, it shall be properly secured at the top and extend at least one meter above the landing or work surface.
- Ladders shall always be supported on the ground or floor but never hung.
- Ladders shall always be used at an angle of 75%. Ladders shall not be used in a vertical position.

◆ **Rigging Equipment**

- All rigging equipment shall be free from defects, in good operating condition certified by Third Party and maintained in a safe condition and shall bear the serial number of the manufacturer and the Safe Working Load capacity (SWL) marked on it. All rigging equipment will also be accompanied by the manufacturer's certificate indicating the serial number and capacity.
- A designated, competent employee of AGST prior to initial use on the jobsite shall inspect rigging equipment and monthly thereafter to ensure that it is safe. Records shall be kept on jobsite of each of these inspections by AGST and shall be made available to CLIENT upon request. Any defective rigging equipment or materials that are observed shall be destroyed or immediately removed from the site.
- No hand spliced slings will be accepted or used on the project.
- AGST will ensure all spreader bars, slings, chairs etc. have an engineered design and a test certificate for the Safe Working Load capacity (SWL) clearly marked on it. AGST will keep relevant documentation on record and make it available upon request to CLIENT.



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◆ Hand and Power Tools

- All hand and power tools, whether furnished by AGST or by AGST's employee shall be maintained in a safe condition.
- AGST shall not issue nor permit the use of unsafe hand or power tools.

◆ Jobsite Transportation Rules

- Drivers of motor vehicles shall be instructed to exercise judgment as well as observe posted speed limits. Maximum speed limit is 40 Km/h in all company premises. However, much slower speeds are necessary in congested areas.
- Vehicles shall only be operated by employees having a valid driver's license and insurance recognized by the Government permitting them to drive in Kuwait.
- All AGST's means of ingress and egress routes will be adequately marked as such, since their employees are to travel these routes only.
- Pedestrians have right of way over motorized traffic.
- Use vehicle horn for Health, Safety & Environment at blind corners and when passing.
- Established signals or turn signals are to be used.
- Ignition key is to be left in cars at all times when within the jobsite. AGST's employees' cars may be locked within the designated AGST's perimeter parking area.
- Reckless driving or other nonobservance of these instructions will be cause for withdrawal of driving privileges on the project.
- No bicycle or 2 wheeled motorized vehicles are allowed on the project. Any ATV's used on the jobsite will be 4 wheeled, not 3 wheeled.
- Full caution is to be exercised in the movement of heavy equipment on CLIENT's roadways. Flagmen or grounds-men shall be provided by AGST ahead of and behind heavy moving loads to ensure safe movement of this equipment, the Health, Safety & Environment of other plant traffic, protection of plant power lines, pipe lines, supports and other operating equipment along the roadways. Rubber tired equipment of adequate load capacity is to be used for offsite movement of crawler type equipment. All cranes are to be moved on plant roads with booms detached or fully retracted.

◆ Cranes and Derricks

- All cranes and derricks shall be certified as being in safe operating condition by a third party Inspection Company prior to submitting it to the Owner for inspection. CLIENT will inspect the crane/derrick, review the third party inspection certificate insurance certificate and drivers/operator license prior to the issuance of an access pass to the jobsite. Cranes will also undergo a third party inspection annually. All certifications shall be maintained by AGST and made available to CLIENT upon request.
- Crane operators must be in possession of a



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- valid Kuwait Government's Heavy equipment license. The operator should be trained, experienced, qualified and certified by the third party for the operation of that specific make and model of crane. AGST will provide operator experience documentation.
- AGST shall form Rigging Group and assign a Rigging Supervisor, Crane Inspector and a Crane and Rigging Trainer to that organization. They shall have adequate training, experience and certification to perform their duties.
- The swing radius of cranes shall be barricaded.
- Standard hand signals shall be posted at an operator's station.
- Only a competent rigger shall direct rigging methods when rigging a load for lift and only one competent signalman shall give signals to direct the lift. Rigger and signalman shall wear a green reflective vest.
- AGST shall observe manufacturer's specifications.
- Equipment shall not be operated where any of the equipment or load will come within 5.0 meters of electrical distribution or transmission lines.
- Equipment shall not be lubricated while in use.
- Rated load capabilities, recommended operating speeds, special hazard warning, specific hand signal diagram and special instructions shall be visible to the operator while he is at the control station.
- AGST's employees shall not be allowed to work under the load or pass through under the suspended load of cranes. This is considered a life threatening (imminent danger) situation and therefore a serious Health, Safety & Environment violation. Tag lines shall be used on all loads. Special caution should be used in concrete bucket operations.
- A competent Crane Inspector prior to each use and at monthly intervals shall inspect cranes and derricks. AGST shall maintain records on jobsite of these inspections and AGST shall make copies available to CLIENT upon request.
- Softeners will be used around sharp edges to prevent damage to slings. Softeners will also be used to prevent damage to material and equipment lifted.
- All non-engineered lifting activities of 5 tons and above and not exceeding 80% of the crane capacity will require a non-engineered lifting permit.
- Engineered lifts not exceeding 80% of the crane's lifting capacity require rigging studies and lifting plan detailing step by step procedure of the lift. It must include but not limited to, loads to be lifted, weight and configuration of load, tailing cranes, boom angles during lift, boom length during lift, hazards in area of lift and other pertinent information which describes how the load will be safely handled during the lift.
- Mobile cranes shall have a load indicator device and limiting devices to control: boom extension and retraction on hydraulic boom cranes; anti-two blocking; operating radius in accordance with lifted load; pressures in hydraulic or pneumatic circuits Load limiting devices, and acceleration and deceleration limiters, shall be installed in enclosures that can be locked or sealed to inhibit unauthorized tampering.
- A wind velocity-indicating device shall be mounted at or near the top of the crane. Velocity readout shall be provided at the operator's in the cab, and a visible or audible alarm shall be



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triggered in the cab when the wind velocity exceeds 20 miles per hours. Crane operation shall stop when the wind velocity is at or exceeds 20 miles per hour.

- Crane booms 30-meter in length or greater, should be either lowered to the ground over night or, the load block should be anchored to a suitable secure object and a slight load placed on the crane block to prevent the crane boom moving when there is no crane operator on site and the crane therefore unattended.

- Categories of lifts listed below will require an engineered lift permit

Engineered Lifts Category "A" Lifts up to 100 tons per the following requirements:

- i) Vessels
 - Vertical - 30 tons and over
 - Vertical - 8 feet diameter and over
 - Horizontal - 60 tons and over
- ii) All other equipment and structures 60 tons and over.
- iii) Equipment or vessels over 20 tons that are inside structures, in inaccessible locations, over operating processes or in hazardous areas as determined by the site manager or rigging engineer. Also included is equipment and vessels constructed of nonferrous materials, or are otherwise prone to damage during handling.
- iv) All multiple crane lifts (exclusive of a tailing crane) in which the load could be transferred from one crane to another during the lift.
- v) All lifts over 80 percent of the capacity chart of the crane for the boom length and operating radius being used, or over 90 percent if the crane has an operational load indication device with an overload cut-off.
- vi) Transportation - All plant equipment over 60 tons.
 - Engineered Lifts Category "B" - Lifts 100 to 600 tons.
 - Engineered Lifts Category "C" - Lifts 600 tons and above.
- AGST shall prior to awarding a lift or rigging contract and approving a rigging plan, review AGST's the rigging plan, risk analysis, and AGST bid evaluation to ensure that risk/liabilities are understood and mitigated to the maximum extent possible.
- A copy of the approved crane lifting permits, and if applicable, a copy of rigging study and lift plan shall be placed in the cab of the lift-crane.
- Lifts consisting of man-baskets transporting people only be allowed as per CLIENT Safe Work Practices and CLIENT HSE guidelines for AGSTs. CLIENT shall review man-basket, design, and third party test and inspection certificate and inspection records prior to approving the lifting permit.

HSE personnel shall monitor all lifts and ensure that lifts are in compliance with the approved permit. If there are any deviations from the approved permit, the lift shall not be allowed to proceed.

◆ Monthly Inspection Program

All of the following:- fuel driven construction equipment, hand and power tools, electrical



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equipment, electrical man-lifts, man-baskets, gas cylinder cradles used for lifting, lifting equipment including slings, spreader bars and shackles, cranes, hoists, fire extinguishers, ladders shall be inspected monthly by competent persons and color coded before the third day of each month. All equipment shall bear a color coded sticker or tag with the AGST's name, AGST's own equipment identification/serial number or manufacturer's model or serial number, date of inspection and the signature of the competent person inspecting the equipment. Equipment without a valid inspection by a competent person and valid color-coding shall not be used and removed from the project site and the access pass cancelled. Should AGST still need to use the equipment on the project, and then AGST has to start over the process of obtaining access for that equipment.

◆ **Housekeeping**

- During the course of construction, all debris and scrap material shall be kept away from the work area. Work areas shall be cleaned at the end of each shift.
- Containers shall be provided by AGST for the collection and separation of waste, trash, oily and used rags and other refuse. Metal (Dumpster type) containers must be used and emptied promptly.
- Garbage and other waste shall be disposed of at frequent and regular intervals in a manner approved by CLIENT.

◆ **Mobile Pantry**

- AGST shall provide Mobile pantry to all vehicles consisting of Water cooler, cool box etc., especially for the long journey one's. .

◆ **Lunch / Break Areas**

- Employees shall take breaks and eat lunch in designated areas only. These areas shall be free from hazardous materials or other possible contaminates.
- Lunch and break areas shall be removed from active work areas where employees would be exposed to on going work while eating lunch or taking a break.
- AGST shall ensure all trash, debris and food residues are cleaned up at the end of the break.
- Consumption of food shall be prohibited in work areas.
- The lunch and break areas shall be shaded against sun and sandstorms. The locations and requirement of such facility shall be approved by CLIENT.

◆ **Smoking**

AGST shall instruct all drivers to not smoke while driving and while being in client premises. Smoking shall be permitted only in allowed / designated / permitted areas.

◆ **Equipment Preservation**

AGST shall ensure the equipment is preserved according to the specifications of the manufacturer,



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people involved in the work are trained and the equipment used for preservation (charging / removal), is inspected and safe for use.

Equipment to be charged / released shall be visually checked for damage, for flange tightness, leaks or any missing items prior to the introduction of the charging /removal medium. Any missing items, damage or loose connections must be rectified before activities take place. Barricades and signs shall be placed around the area.

◆ **Medical and Health**

- AGST shall appoint a health coordinator who shall be responsible for implementing AGST's health program at the company.
- AGST shall provide a First AID Box in all vehicles and all drivers shall be trained in First Aid to meet the emergency.

◆ **Security**

- AGST shall be responsible for the security of its own facilities including material, vehicles, tools, equipment, and any other possessions of AGST.
- AGST shall control access at all the gates and entrances to the company 24 hours a day, 7 days a week.
- AGST shall issue numbered, reasonably tamper proof ID badges to AGST & contractor employees.
- AGST is responsible for ensuring that all ID badges issued to AGST employees are not damaged or lost.
- AGST shall ensure access passes and ID badges are visibly displayed at all times and present it to Security at the access gates.



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Vehicle / Equipment Safety

VEHICLE / EQUIPMENT SAFETY:

The vehicle shall have the adequate capacity for the required duty and have been purposely designed for the service allocated as well as maintained in safe working order.



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As a minimum the vehicle shall be equipped with the following features:

- i. left and right side view mirrors
- ii. Rear window defogger.
- iii. Dual air bags.
- iv. Anti – lock braking system (ABS)
- v. Side impacts bars.

The vehicle such as Trailers, Cranes, Bulldozers, front-end loaders and scrapers etc., shall include:

- i. Over head protection canopy
- ii. Automatically switched back-up alarm with intermittently sounding tone.
- iii. A horn, which is audible above engine noise.
- iv. Convex type rear view mirror.
- v. Parking brakes.
- vi. Safety locks on gear changes.
- vii. Hearing protection for drivers on noisy equipment
- viii. Operator and assistant to wear hardhat and safety boots.

Each vehicle shall be equipped with fire extinguisher properly ratted for the particular vehicles on mounted in an accessible and protected location.

A complete first aid kit shall be carried in each vehicle.

No vehicle shall be used for conveyance of personnel unless that vehicle has been specifically designated and equipped as a passenger- carrying vehicles. The number of passengers doesn't exceed manufactures specification for the vehicles.

The driver as well as passengers must be seated wearing seat belt during the journey.

It is to be ensured that the load being carried on a vehicles or secured and don't exceed manufacture specification as well as legal limits for the vehicles.

No vehicle will transport any flammable, toxic, corrosive, radioactive, explosive and other harmful substances except in specially designed containers / vehicles as authorized by the state Government as well as AGST regulations.

Vehicles carrying the gas cylinders for welding purposes should be fitted with special cylinders fasteners to secure the cylinders.

For any motor vehicle parked on the road in the project sites engine should be put off and ignition keys kept in side the motor vehicles so that in an emergency the motor vehicle can be evacuated easily.

Regulatory requirements:

All laws and regulations concerning driving must be followed, including:

- a) Person driving a motor vehicle must have valid drivers license



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- b) All traffic regulations must be obeyed.
- c) Motor vehicles must be maintained in road worthy conditions.
- d) Lights must be used as required.
- e) Following alcohol/ illegal drug prohibition
- f) Motor vehicle should have appropriate insurance.
- g) Motor vehicle must be parked only at the assigned places and parking brakes applied.
- h) Motor vehicle must not be parked on roads or areas near fire hydrants, other fire fighting facilities, power transformers or on inclines/ slopes.

Emergency Appliances For Vehicles:

You may not know when a road emergency will happen but you can be prepared by ensuring that your vehicle has essentials for dealing with roadside emergencies. Consider items such as the following:

- Flashlight
 - Reflective safety vest
 - Light sticks
 - Fire extinguisher
 - Tire inflator or sealant
 - Reflective triangles or flares
 - An spare tire – Ready for use
 - Lifting jack.
 - First aid kit
 - Hand tools (e.g. Hammer and cutters)
- ✿ Know where the items are and how to use them safely.

Tips for Safe Driving:

Vehicle Check:

- That your vehicle is in sound condition

Inside the Vehicle:

- Door locks – Manually / automatically
- Seat adjustment and head restraint
- Seat belt and mirrors adjustment
- Scan gauges and alarms after starting the engine.
- Don't ignore/ overlook any alarm.
- Adjust A/C / heater, Vents/Windows.

Outside the Vehicle:

- Tiers, mirrors, under the vehicle
- Taillight, turn signals
- Lights – brake, Parking, headlight.



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Speed:

Speeding drivers are number one cause of accidents.

Remember; "SPEED THRILLS – BUT KILLS"

- Respect the speed limits (Upper and lower)
- Slow down – Somebody is waiting for you never over speed.

Steering:

- Keep both hands on steering unless necessary.
- Drive smoothly and change the lanes, exit main roads and crossing carefully
- Always wear seat belt and insists the same to the accompanying the members.

Overtaking:

- Don't overtake at or while approaching a junction.
- Don't overtake where you can not see for a head to assure safe passage.
- Never overtake to conflict with others.

Safe Distance:

- Maintain a safe distance around your vehicles.
- Avoid tailgaters and let them pass.

Vision:

- Look a head and scan the road to get the big picture.
- Frequently view in the mirrors and avoid blind spots.
- Do not fix your vision on any objects.

Reversing:

- Scan the area and check the mirror before reversing
- Make a reverse move at the minimum speed
- Travel reverse to a distance sufficient to maneuver.

Stopping:

- Stop completely at stop sign
- Switch hazards light if you need stop due to failure in the vehicle
- Stop a pedestrian crossing and give right of way.

Seat Belt:

- Always wear the seat belt and ask the passenger to do the same. Move only if everyone seatbelt is fastened.
- Readjust seat and arm position to reduce fatigue from long period of driving.(Not to be done whilst the vehicle is moving)



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Headlights:

- Turn headlight on at least 30 minutes before sunset.
- Use low beam when there is a car close in front or coming towards you.

TRANSPORTATION

If at any time during the transportation of the load, you have concern with Load safety or security, stop in a safe controlled area and report to your projects.

DELIVERY CHECKS

On arrival at site, report to a responsible person for instructions.

- 1 Follow all instructions, including any traffic, health & safety and loading requirements.
- 2 Proceed to designated unload point, taking care of others working in the area.
- 3 Before starting the unload process, check that the load is evenly distributed across the body, and from front to rear to prevent sideways tip, and unnecessary overloading of tipping gear.
- 4 Be aware of any load that may not flow easily during the tipping process.
- 5 Make sure that the vehicle is parked on firm level ground from side to side, and not facing downhill.
- 6 Articulated vehicles should ALWAYS be tipped with the tractor unit and semi-trailer in a straight line.
- 7 Before beginning to tip check for any overhead cables or other obstructions.

Defensive driving:

The most important part of defensive driving is anticipating the actions of other drivers. Know how to react (responsibly) to other drivers and changes in the driving environment. Watch for pedestrians and bicyclists and monitor yourself — your physical and mental condition affects how you drive.

Rear-ending other vehicles is a leading cause of vehicle accidents. Maintain a three-second following distance to give you time to react and stop safely. Increase your following distance during adverse weather and when you drive larger or heavier vehicles.

Aggressive driving:

Some drivers will do almost anything to get to their destination — tailgating, weaving in traffic, ignoring traffic lights and the rights of other drivers. It's called aggressive driving. It's dangerous and causes an increasing number of traffic crashes. Aggressive driving is different than media-inspired road rage, in which the driver uses a vehicle as a weapon or physically assaults another driver. Road rage is a criminal offense. Plan ahead; allow plenty of time to reach your destination, check traffic conditions before you leave.

Distracted driving:

Now, everyone seems to be talking or texting on cell phones while they're driving — but driving is not the time for multi-tasking. You make more than 200 traffic-related decisions per mile when you're driving so it's critical to focus only on driving. Distracted driving is a factor in 25-30 percent of motor vehicle crashes. Driving should be your only



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job when you're behind the wheel.

Pull off the road when you need to talk, text, or read e-mail on your cell phone. The crash risk with a hands-free model is just as great as using a hand-held phone.

Drowsy driving:

- Due to inadequate sleep.
- Health problem and medication
- Fatigue and mental stress.
- Stressful road condition
- Shift work and extended duty.



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MARINE SAFETY



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MARINE SAFETY

SAFETY CONDITIONS FOR VESSELS:

1. **Safe Operations:** Responsibility for the safe operations on board the vessel while within the "Danger Zone" rests with the Vessel. Pilotage is compulsory within the Port limits. Master & crew of the vessel shall comply with industry safety rules, safety regulations and safety measures, including the following safety conditions.
 2. **Moorings:** The Vessel shall be securely moored and in the correct position and tended to at all times. Auto-tension winches shall not be used in automatic mode. Mooring ropes should meet minimum requirements as per BS 6349 part-1 or equivalent and they shall be checked before and during use.
 3. **Readiness To Maneuver:** Main engines, personnel and all equipment shall be kept in a state of readiness at all times so as to enable the Vessel to maneuver under her own power in an emergency.
 4. **Anchors:** No vessel shall lie alongside any berth with an anchor on the bottom. Should anchors be used during berthing operations, they shall be hove (lifted) home on completion of securing alongside.
 5. **Incidents:** in the event of an incident which warrants cessation of cargo operations, the Vessel's manifold valves and at-least one tank filling valve shall be left open to facilitate draining of loading arm prior to activating quick release of loading arm coupling, in preparation for unberthing.
 6. **Fire Alarm:** In the event of an outbreak of fire, on the Vessel within the port, the Master shall arrange for an immediate signal, either by a prolonged sounding of the ship's whistle or by the ringing of a fire bell and shall promptly notify the loading master, as well as arrange for the report to be sent to him. This will be supplemented by the sounding of the Company general alarm system.
 7. **Ship-shore Access:** Every vessel shall provide a safe access (proper gangway with handrail/ladder) to and from the vessel. When the vessel's deck is higher than 3m above the Pier, a safety net shall be rigged on the gangway/ladder. A lifebuoy with not less than 15 fathoms (27m) of lifeline attached shall be positioned on the vessel near the gangway/ladder.
8. **Emergency Escape:** In addition to the normal means of access between Vessel and shore, a safe and quick emergency escape route shall be available and maintained in the form of a ladder on the offshore side and survival crafts, etc.
9. **Routine Inspections:** In order to assure compliance with these Safety Conditions, AGST may, from time to time, instruct a member of its staff to visit the Vessel, who will report to the Master or the officer of the watch. One of the Vessel's officers shall join the AGST representative in a routine inspection of cargo decks and accommodation spaces, and record the findings. AGST representative means Operation Shift Supervisor, Area Safety Engineer or other person authorized by the Superintendent Operations of the area/zone.
10. **Cargo Watchman:** One watchman shall be stationed at the Vessel's manifold / gangway, visible from ashore at all times during cargo operations, to report any abnormalities.
11. **Ballast:** The water ballast, which is intended to be discharged, shall be entirely free from oil, foreign organisms and other substance that might pollute the port and Kuwait waters. The higher over board discharge shall be used and the discharge shall be monitored continuously for any pollutants.
12. **Over Loading:** The International Load Line Regulations shall be strictly followed. In the event of overloading considerable delay may occur before facilities are available for pumping surplus cargo ashore, any



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resultant costs or delays shall be to the Vessel's account.

13. **Smoking & Galley Fires:** Except as provided in the Agreement on Smoking Places and Galley Fires, smoking or use of galley fires shall not take place on board the vessel
14. **Naked Lights & Electrical Equipment:** All naked lights, flames, unconfined fires, incandescent elements, unsafe electrical equipment or any equipment likely to cause sparking, shall not be used within the Danger Zone.
15. **Electrical Cables:** On all exposed decks, vulnerable cables to any portable or fixed machinery, lights, etc., shall be disconnected from the electrical source.
16. **Hand Torches:** Torches approved to British Standards Institute ("BSI") or equivalent standards and duly certified for use in explosive atmosphere shall only be used.
17. **Fire-Wires:** Fire wires (emergency towing wires) shall be rigged as follows (see Figure 22.1):
- a. Two fire-wires, on the offshore bow and quarter of the ship, shall be rigged as far forward and aft as practicable.
 - b. Fire wires shall be properly made fast on the ship's bollards with the slack arranged on deck, ready for free running.
 - c. All means shall be provided to prevent the slack from accidentally running into the water, and so arranged that the tugboat's crew can easily break them.
 - d. The eye of the fire wire shall be maintained at the waterline throughout the cargo operation and regularly checked and adjusted as necessary.
 - e. Minimum lengths and diameters of fire wires shall be as follows: -

<i>Dead weight (metric tons)</i>	<i>DIAMETER (MM)</i>	<i>LENGTH (M)</i>
Below 30,000	28	70
Between 30,000 and 200,000	38	110
Over-200,000	42	110

24. **Hoses:** Hoses shall be in good condition and shall be properly attached and supported during cargo operation.
25. **Ventilators:** Where any ventilators are likely to admit cargo vapor to enclosed spaces, they shall be trimmed back to the wind or effectively plugged.
26. **Air Conditioning Intakes:** All powered ventilation systems likely to admit cargo vapor to enclosed spaces shall not be used or shall be kept closed.
27. **Window Type Air-Conditioning Units:** No window type air- conditioning units shall be operated within the Danger Zone and shall be disconnected from electrical source.
28. **Unused Cargo & Bunker Connections Including Bow or Stern Cargo Lines:** All unused connections and lines shall be securely blanked when not in use.
29. **Scuppers:** All scuppers shall be effectively plugged. Accumulation of water during cargo operations shall be drained off periodically.
30. **Cargo, Bunker and Ballast Tank Lids:** All cargo, bunkers and ballast tank lids shall be securely closed unless otherwise stated in the gas venting and cargo loading rate agreement.



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34. **Fire Hoses & Equipment:** All fire-fighting equipment and steam or inert gas smothering system shall be ready for immediate use. Hoses on the loading deck, at least one forward and one aft of the manifold shall be connected to fire main unless the vessel is adequately equipped with fire monitors. The vessel's fire pump shall be on standby condition and ready for immediate operation.
 35. **Portable fire extinguishers** of a suitable type and size shall be conveniently placed for use near the vessel's manifold in use.
 36. **Fire Plan:** Vessels fire plan shall be available outside the accommodation.
 37. **Inerting and Cooling:** Inerting and cooling (LPG) operations shall not be carried out while the vessel is within the Danger Zone.
38. **Warning Flag & Light:** Whilst loading/discharging each vessel will fly by day where it shall be seen the International Code Flag letter "B" (red flag). By night from sunset to sunrise red light shall be exhibited where it can be seen best and visible all round the horizon.

SMOKING

1. Multilingual NO SMOKING signs shall be prominently displayed at all entrances to hazardous areas. Smoking is permitted only in approved smoking areas of the terminal.

VEHICLES & ENGINE DRIVEN EQUIPMENT

1. Vehicles & engine driven equipment shall meet the requirements as per Chapter-18, which include having a valid safety certificate and hot work permit (see Chapter-8).
2. Vehicles shall also have a special security pass approved by Operations Area Supdt.
3. Use of approach trestle shall be in accordance with displayed load and speed limits.
4. Vehicles shall not be allowed beyond the approach trestle except vehicles/equipment with hot work permit. "No Entry" sign shall be displayed at the vehicle termination point. Vehicles shall be reverse parked, engine stopped, doors unlocked and ignition key left in place. Emergency vehicles may be allowed to proceed beyond with incident controller's permission.
5. On one traffic lane approach trestle, vehicle nearest to the "give way bay" shall stop there until the approaching vehicle passes.
6. Port traffic rules shall be applicable at sulfur/coke berths in Shuaiba Port.

EARTHING, BONDING, STATIC ELECTRICITY

1. **Wandering Leads** (Electrical Cords): No portable wandering leads may be used alongside or on a craft without a work permit and approval by an Electrical Engineer to ensure insulation is undamaged and connections are of an approved pattern. Care is to be taken to ensure that no mechanical damage can occur during use.
2. When handling static accumulator oils, all metal on the shore side of the insulating flange or the non-conducting hose should be electrically continuous to the jetty earthing system and all metal on the seaward side should be electrically continuous to the ship.
3. When an insulating flange or single length of non-conducting hose is installed, it shall not be short-circuited by contact with external metal.
4. Insulating flanges should be visually inspected periodically to ensure the insulation is clean and in good condition.



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5. Static Electricity: Overshot or splash fitting and the pumping of water/oil mixtures are to be avoided.
6. Loading and discharge pumping rates and flow velocities strictly comply with the operating manual.

WORKING OVER OR NEAR WATER - PREVENTION OF DROWNING

1. Personnel working, walking over or near the water or personnel on floating craft shall wear **life jackets** unless proper working platforms with guardrails and/or safety nets or other suitable measures to eliminate the hazard of their falling into water and drowning are provided.
2. Life jackets shall be non-inflatable type and shall comply with the requirements of US Coast Guard Standard USCG 160-064/700 or equivalent. They shall be maintained in good condition, stored properly and used as per manufacturer's instructions. It shall be checked prior to and after each use for defects, which would alter their strength or buoyancy. Defective units shall not be used.
3. Irrespective of suitable measures to eliminate the hazard of personnel falling into water, life jackets shall be worn during rough sea and hours of darkness.
4. Any employee working below deck and away from proper platform shall be equipped with **safety harness** and lifeline in addition to life jacket.
5. **Life buoys** shall be available or arranged in readily accessible locations near the place of work, over or near the water surface and on craft. They shall be equipped with a self-operating marker light and fitted with a line not less than 90 ft (27 meters) in length. Distance between adjacent buoys shall not exceed 200 ft (60 meters) and readily available for emergency rescue operations. They shall be periodically inspected to ensure that the line, marker light, and buoy are in good and operable conditions.
6. At least one **rescue boat/survival craft** shall be immediately available at locations where employees are working over or adjacent to water. It shall be serviced twice yearly by a competent service center and certified (as per SOLAS requirement or equivalent).
7. Operations Supervisor & AGST pilot shall check each Sea Island **survival craft** twice a month and jointly sign a checklist. Survival craft shall be lowered in the water and operated away from Sea Island quarterly. Valid seaworthiness certificate shall be available.
8. **SAFETY NET:** When safety nets are used as fall protection, the mesh size of nets shall not exceed 6 inches by 6 inches (also see Chapter-5). User shall check the safety net before each installation and once every month for frayed or cut cords. AGST Safety shall verify that checks have been carried out. Nets shall not be used if any doubt exists regarding its strength. Nets shall extend 8 feet beyond the edge of the work surface where employees are exposed and shall be installed as close under the work surface with sufficient clearance to prevent user's contact with the surfaces or structures below. Debris nets used to prevent injury or property damage/ pollution from objects falling from heights normally have a 3/4" size diamond or square shaped mesh. Debris net can be attached to personnel net or used separately. Nets shall be properly secured when rigged.
9. **Scaffolds** shall be built in compliance to Chapter-15. Submerged or partly submerged scaffold shall be rechecked before use for disturbance due to tide changes.

GENERAL REQUIREMENT FOR MARINE CRAFTS

All crafts, which are to be used within the danger zone and associated areas shall meet the following;

1. Good seamanship practices and relevant marine regulations shall be followed.



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2. All crafts shall have registration, and certificates of Class, Construction, Oil spill etc.
3. The craft should have intrinsically safe radio communication system and the radio shall be manned at all times.
4. The craft should have sufficient number of portable fire extinguishers.
5. All lifting tools and tackles on board marine craft shall have third party certification.
6. All barges shall have an escort tugboat attending them at all the times. The tugboat shall be powerful enough to move/control the barge in rough sea conditions.
7. The Master of the craft engaged in maintenance/construction work shall obtain a hot work permit from terminal supervisor for operation of the craft. Same permit may cover the actual work on board the craft.
8. Personnel embarked on floating craft are expected to act in a responsible manner at all times and shall obey the instructions of the Master.
9. Unexpected movements of the craft in good weather shall be anticipated and guarded against. Personnel should keep away from the craft's side and make use of the handrails at all times.
10. Smoking on the deck of the craft is prohibited when operating within danger zone.
11. **Care of tools and equipment:** Protective coatings reduce the corrosive effects of salt water and salt laden air on tools and equipment. Nuts, bolts and threads should be covered with grease or a similar protective coating. Objects that are dropped from any height can cause injury or damage, and they may be impossible to recover. Hence, small hand tools should be secured by lanyards.
12. **Tide and sea effects:** During general offshore work, allowance shall be made for wave action and the rise and fall of the tide. A generous safety margin shall be allowed. Well protected safe access points shall be provided to ensure the stability of the access area.
13. **Preparation for transportation by sea:** Loose and movable parts of material and equipment shall be properly secured against movement. Such material and equipment shall always be prepared as if for very rough weather. Sea conditions can change rapidly. Even with no wind a swell can produce violent movement. So lashing shall be adequate to avoid any movement of the consignment under any weather conditions.
14. **Indication Lighting:** shall be provided with visibility up to at least 300 meters.



CLOSURE

Our Health, Safety & Environment program is planned to protect you and prevent accidents.

Your sincere co-operation is most important.

Report any unsafe acts/conditions that cause accidents/incidents to HSE Corporate Department.

We are extremely proud of our Health, Safety & Environment records.

Help us make it better.

"SHARE THE PRIDE WITH US"



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Health, Safety & Environment Corporate Department

ACCIDENT DATA REPORT

S.L. #	Performance Indicators	2006	2007	2008
A	Number of First Aid Cases (FAC)	50	32	47
B	Number of Lost Workday Cases (LWC)	1	0	0
C	Number of Medical Only Treatment Cases (MTOC)	3	1	2
D	Number of Restricted Work Cases (RWC)	1	2	1
E	Number of Permanent Partial Disabilities (PPD) Plus Permanent Total Disabilities (PTD)	0	0	0
F	Number of Fatalities (FAT)	0	0	0
G	Number of Vehicle Accidents	3	2	2
H	Total Work Site Exposure Hours	2,393,545	2,202,062	2,585,028
I	Frequency Rate (FR) as calculated below for:			
	FR for LTI: (B+E+F)* 200.000 / H	0.0836	0.0000	0.0000
	FR for RMC: (C+D)* 200.000 / H	0.3342	0.2725	0.2321
	FR for TRC: (B+C+D+E+F)* 200.000 / H	0.4178	0.2725	0.2321

Projects in Kuwait:

SL. No.	Name of Project	Duration			Man- Days	Working Hours Per Day	Man- Hours for One Shift	Shifts	Total Man-Hours	LWC	Safe Working Man-Hours
		Month	Day	Man Power							
1	AZ-Zour South Power Station -ex Siemens	24	720	55	39,600	9	336,600	3	1,009,800	0	1,009,800
2	Shuwaikh Power Station ex GE USA	5	150	65	9,750	8	78,000	2	156,000	0	156,000
3	Subiya Power Station ex GE USA	6	180	30	5,400	8	43,200	3	129,600	0	129,600
4	AZ-Zour Emergency Power Station ex Alstom	12	360	40	14,400	9	122,400	3	367,200	0	367,200
5	AZ-Zour Extension Power Station ex Siemens	36	1,080	66	71,280	9	605,880	3	1,817,640	0	1,817,640
6	Several Sub Stations Ex-Siemens	24	720	62	44,640	8	357,120	3	1,071,360	0	1,071,360
7	Japan Air Self Defence Force (Ali Al Salem Air Base)	3	90	25	2,250	9	19,125	3	57,375	0	57,375
8	US Military shipments delivery and pick up from several US Military camp	36	1,080	50	54,000	8	432,000	2	864,000	0	864,000
Total =		146	4,380	393	241,320	66	1,994,325	22	5,472,975	0	5,472,975

Projects in Iraq:

SL. No.	Name of Project	Duration			Man- Days	Working Hours Per Day	Man- Hours for One Shift	Shifts	Total Man-Hours	LWC	Safe Working Man-Hours
		Month	Day	Man Power							
1	Baghdad South Power Station ex GE, USA	14	420	75	31,500	8	252,000	2	504,000	0	504,000
2	US Embassy compuund, Basrah, Iraq	5	150	79	11,850	8	94,800	2	189,600	0	189,600
3	Shuaiba Power Station, Iraq	2	60	20	1,200	9	10,800	3	32,400	0	32,400
4	Basrah Refinery	7	210	59	12,390	8.5	105,315	2	210,630	0	210,630
5	Rebuilding of Bridges Project at Kirkuk, Iraq	3	90	75	6,750	8	54,000	3	162,000	1	157,500
6	Handling of 120 units of vehicles to British Army, Basrah, Iraq	8	240	59	14,160	8.5	120,360	3	361,080	0	361,080
7	Water Treatment Plant ex GE USA	3	90	35	3,150	8.5	26,775	2	53,550	0	53,550
8	Basrah Children Hospital & University, Iraq	5	150	54	8,100	8	64,800	3	194,400	0	194,400
9	US Embassy, Baghdad	8	240	68	16,320	8	130,560	3	391,680	0	391,680
Total =		55	1,650	524	105,420	75	728,850	20	1,707,660	1	1,707,660

Grand Total for Three Years	201	6,030	917	346,740	141	2,723,175	42	7,180,635	1	7,180,635
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SI No.	Description	2006	2007	2008
1	Mandays	115,580	102,398	128,762
2	Man-hours	2,393,545	2,202,062	2,585,028
3	Training Man-hours			
	a) Inducting Training	17,233.52	19,378.15	21,714.24
	b) Tool box	86,167.62	96,890.73	108,571.18
	c) HSE Training	112,017.91	125,957.95	141,142.53
	Cum. Training Man-hours	215,419.05	242,226.82	271,427.94
4	Frist Aid Cases	50	32	47
5	Medical Treatment Only Cases	3	1	2
6	Lost Work Day Cases	1	0	0
7	Vehicle Accident	3	2	2