

## **MISC Berhad**

# **Health, Safety and Environment Requirements for Contractors**



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# Health, Safety and Environment Requirements for Contractors (Part I – General HSE Requirements)



## PART I - GENERAL HSE REQUIREMENTS

### 1. Compliance with Laws/Regulations/MISC Requirements

CONTRACTOR shall comply with all applicable Health, Safety and Environmental (HSE) laws and regulations, which are applicable to the WORKSITE.

CONTRACTOR shall comply at all times with the requirements as set forth by MISC in its Health, Safety and Environment Management System (HSEMS), site and MISC Safety Rules, policies, operating standards, any special instructions (which shall be available upon request), and all other requirements stipulated in this CONTRACT whichever and/or whenever applicable as determined by MISC (hereinafter referred to as MISC's HSE Requirements"). These requirements are intended to supplement any known or ought to be known laws and regulations applicable at the WORKSITE.

MISC shall have the right to conduct its own HSE inspection/audit at the WORKSITE to ensure CONTRACTOR's compliance to MISC's HSE Requirements throughout the performance of the CONTRACT.

CONTRACTOR shall take all necessary HSE precautions related to or arising out of the performance of the CONTRACT in order to protect the work, the personnel and property of MISC, CONTRACTOR, SUB-CONTRACTOR, all third parties and public from the hazards and risks associated with the work.

### 2. CONTRACTOR's Written Policy/Organization

CONTRACTOR shall acknowledge MISC's strong commitment to MISC's HSE Requirements and affirms that it has a written HSE policy which is of a standard acceptable to MISC HSE policy.

CONTRACTOR shall further affirm that its HSE policy is applied and exercised by all its personnel including SUB-CONTRACTOR's personnel ("Personnel") when performing WORK.

### 3. Protection of Workers, Public, Environment and Assets

CONTRACTOR shall protect the safety and health of the Personnel, MISC's personnel and third parties living or working near the activity from potential hazards and risks related to and/or arising out of the performance of this CONTRACT. CONTRACTOR, without cost to MISC, shall take all necessary precautions and mitigation measures to protect its personnel, MISC's personnel and third parties as well as to minimize disturbance and inconvenience to the public related to and/or arising out of the performance of this CONTRACT.

CONTRACTOR shall execute the WORK and conduct all operations in such a way as to minimize any impact upon the natural environment including compliance with all laws, regulations and rules applicable to the WORKSITE. CONTRACTOR shall agree to indemnify MISC and consultants of MISC for all claims, damage costs and penalties relating to any environmental damage or loss or non-compliance with any laws or regulations arising out of CONTRACTOR and/or SUB-CONTRACTOR performance of WORK.

### 4. Right to Stop Work

MISC shall have the right to stop commencement of WORK or to suspend any WORK in progress if the equipment, machinery, personnel or work conditions are considered at MISC's discretion to be unsafe or not to be in compliance with any applicable rules, regulations and procedures in MISC including the MISC's HSE Requirements.

Suspension of the WORK shall be at CONTRACTOR's expense until CONTRACTOR has satisfactorily rectified such defects and unsafe conditions. In the event of serious or repeated infringements, MISC shall be entitled to terminate the CONTRACT without compensation.

# Health, Safety and Environment Requirements for Contractors (Part I – General HSE Requirements)



## 5. Maintain Equipment, Tools and Machinery in a Safe Condition

CONTRACTOR shall ensure that all CONTRACTOR's machinery, tools, equipment, facilities and other items in any way associated with or utilized in the work are fit for use and maintained in a safe and good working condition. Certificates of Fitness, Calibration Certificates, etc. where applicable shall be provided whenever requested by MISC.

## 6. Risk Management and Hazards Identification

CONTRACTOR shall make assessment of the HSE risks involved in the execution of the WORK. The focus of the assessment should be to evaluate the inherent hazards in conducting the work and the potential adverse consequence of an accident to its personnel, MISC's personnel, third parties and the environment, MISC assets and reputation. CONTRACTOR shall take appropriate preventive and mitigation measures to prevent incidents from occurring and to minimize the consequence of an event should it occur.

CONTRACTOR shall conduct HSE inspections and audits to ensure that such preventive and mitigation measures are in place and implemented. CONTRACTOR shall promptly take actions on all recommendations made pursuant to the said inspections and audits.

## 7. Competent Personnel

CONTRACTOR shall ensure that its personnel are fully trained, certified and competent to carry out the task of operating all machinery, equipment, and tools. Certificate of competency shall be provided where applicable and whenever requested by MISC. CONTRACTOR shall provide an adequate level of technical and HSE related training conducted by a recognized training institution for all relevant personnel in connection with the work. All CONTRACTOR supervisory personnel shall attend relevant HSE training including, but not limited to, in hazard identification and risk assessment.

CONTRACTOR shall ensure that all CONTRACTOR and SUB-CONTRACTOR's personnel engaged in the WORK are healthy and fit, and possess the experience and skill required to perform the WORK safely.

## 8. HSE Awareness

CONTRACTOR shall be responsible for maintaining and enhancing the HSE awareness among its personnel and SUB-CONTRACTOR's personnel, including but not limited to arranging safety induction, toolbox meetings, regular HSE meetings and emergency exercises and drills.

Findings of hazard identification and risk assessments including Job Safety Analysis shall be communicated to CONTRACTOR's and SUB-CONTRACTOR's personnel. Copies of minutes of CONTRACTOR safety meetings shall be submitted to MISC whenever requested.

## 9. Incident Reporting and Investigation

CONTRACTOR shall report to MISC immediately of the occurrence of any incident or accident including near misses while engaging with MISC assets or properties as per MISC incident reporting requirements. CONTRACTOR shall also alert relevant authorities in relation to the incident whenever necessary.

All incidents that result in or have the potential to cause serious injury or property damage shall be reported to MISC and CONTRACTOR shall provide full cooperation and support to any investigation initiated by MISC.

CONTRACTOR shall maintain accurate incident and injury records and shall comply with MISC's requests for information relating to accidents, injury or illnesses and/or near misses.

# Health, Safety and Environment Requirements for Contractors (Part I – General HSE Requirements)



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## 10. Housekeeping

CONTRACTOR shall ensure that good housekeeping is maintained continuously throughout the duration of the work. Due regard shall be paid to proper disposal of all types of wastes especially hazardous/scheduled wastes, tidiness, and clear access ways and emergency exits.

Access and egress of all exits, fire and safety equipment, and work areas shall be kept clear of obstructions at all times. Special attention shall be given to among others, maintaining clear walkways, removal of slippery and tripping hazards, securing or removing of loose materials at height, and proper storage of materials. All housekeeping costs shall be borne by CONTRACTOR.

# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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### PART II - SPECIFIC HSE REQUIREMENTS

#### 1. Site Safety and Health Officer ("SHO")/Safety Supervisor

- 1.1 CONTRACTOR shall provide qualified SHO or supervisor who is responsible to provide guidance and advice pertaining to Health, Safety and Environment (HSE) requirements of WORK.
- 1.2 The SHO responsibilities are;
  - a) To guide CONTRACTOR's management on HSE plan and its implementation, with equal diligence being paid to fulfillment of the contractual requirements.
  - b) Perform a formal site inspection or audit to identify and correct any non-compliances noted.
  - c) Provide written record of inspections, audits and status of action follow-ups.
- 1.3 CONTRACTOR shall submit the CV of the SHO or supervisors to MISC when requested.

#### 2. Project HSE Plan

- 2.1 CONTRACTOR shall prepare and submit a specific HSE project plan to MISC as minimum as the followings:
  - a) HSE policy, targets and requirements
  - b) Prevailing laws and regulations
  - c) CONTRACTOR HSE policy
  - d) CONTRACTOR's organization including positions for HSE manager and SHO
  - e) HSE responsibilities of CONTRACTOR key personnel
  - f) Risk assessments including preventive and mitigating measures
  - g) Description and schedule of HSE activities
  - h) Incident reporting and investigation
  - i) Emergency response plan

#### 3. Equipment, Tools and Machinery Inspections

- 3.1 Prior start of work, all equipment, tools and machinery related to the work are inspected and fit for the work.
- 3.2 HSE inspections throughout the WORK are to be maintained and performed continuously by the CONTRACTOR. All recommendations made by the inspectors are promptly implemented without delay.
- 3.3 MISC has right to conduct its own HSE inspection and/or audits at site and the CONTRACTOR shall comply with all the recommendations made.
- 3.4 CONTRACTOR shall ensure all fuel powered and electrical equipment (including any requirements on fuel burning equipment) meet the requirements of hazardous area classification by authorities and equipped with approved spark arrestor.
- 3.5 CONTRACTOR shall ensure only certified competent personnel are allowed to operate and/or maintain equipment, tools and machinery.

#### 4. Personal Protective Equipment ("PPE")

- 4.1 CONTRACTOR shall enforce the use of PPE to all its personnel including the SUB-CONTRACTOR's personnel and supply adequate PPE, donning training and maintenance of PPE at its own cost.
- 4.2 The PPE must be suitable for the job as per Attachment 1 PPE MATRIX.



# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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### 5. Inspection and Tagging of Mechanical Equipment

- 5.1 CONTRACTOR shall inspect and tag all mechanical equipment identified to be used.
- 5.2 The equipment will include but may not be limited to the following:
  - a) Cranes
  - b) Fork lifts
  - c) Self-Loading Trucks
  - d) Semi-Trailers and Prime Movers
  - e) Compressors
  - f) Temporary Electrical Distribution Boards
  - g) Scaffolding equipment
  - h) Rigging equipment
  - i) Man-cages/Personal Baskets
  - j) Aerial Work Platforms
  - k) Welding machine
  - l) Grinding and cutting machine
- 5.3 Any inspected equipment which requires remedial work (or replacement) shall be at CONTRACTOR's costs.

### 6. Working in Confined Space

- 6.1 Prior entering Confined Spaces, Permit To Work shall be granted by the Master.
- 6.2 CONTRACTOR shall take adequate precautions and mitigation measures of gas/oxygen tests, PPE requirements, respiratory protection equipment (RPE), isolation of connections to confined space, provision of ventilation equipment and preparation of confined space for safe entry, standby person, availability of rescue equipment.
- 6.3 The SHO or entry supervisor shall ensure that all necessary precautions and mitigation measures are implemented.
- 6.4 CONTRACTOR's shall ensure their personnel are medically fit to work in confined space.

### 7. Permit To Work (PTW)

- 7.1 CONTRACTOR shall comply with MISC's PTW procedure if any activities such as hot work, cold work, lifting, confined space entry, radiography and underwater to be carried out.
- 7.2 The PTW permits and certificates shall be approved by the Master.
- 7.3 CONTRACTOR shall continuously enforce the conditions and requirements of the permits including its validity.

### 8. Tools and Equipment

- 8.1 CONTRACTOR shall ensure all purchased or rented machinery, tools and equipment, facilities, and other items related to WORK are maintained in a safe condition and to be operated by competent operators.
- 8.2 Tools shall only be used for the job they were designed to perform.
- 8.3 All guards shall be fitted and in good condition at all times.
- 8.4 All grinding discs shall be checked for correct size and speed prior fitting.
- 8.5 Electrically powered tools shall meet the hazardous zones requirements (if applicable).
- 8.6 All electric cables shall be industrial type 8.7 All defective tools and equipment shall be prohibited from used.

# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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### 9. Compressed Gas Cylinders

- 9.1 CONTRACTOR shall ensure that;
- a) Compressed gas cylinders stored or used shall be in an upright position and secured to some substantial object or structure by a chain or other suitable means capable of supporting the weight of the cylinder. This applies to all empty or full cylinders.
  - b) Cylinder valves shall be closed and hoses depressurized when cylinders are not in use.
  - c) Cylinders shall have protective valve caps in place while they are being transported / stored.
  - d) Cylinders shall be kept promptly to a suitable storage area after use and shall not be left unattended at any work site. Cylinder storage areas should be kept away from general traffic paths and shall not be adjacent to vehicle paths.
  - e) Flammable gases and oxygen cylinders shall not be stored in close proximity unless separated by a non-combustible wall.
  - f) Cylinders shall be colour coded in accordance with International or respective national standards.
  - g) Gas welding cylinders shall have hose check valve (non-return valves).
  - h) Flashback arrestors shall be installed to quench flashback flames and cut off the gas flow automatically, in both oxygen and fuel gas outlet lines.

### 10. Welding and Cutting

- 10.1 CONTRACTOR shall ensure that;
- a) ONLY competent and authorized workers are allowed to handle welding and cutting equipment.
  - b) Suitable precautions and mitigation measures against exposure of welding hazards i.e. excessive ultraviolet radiation, fire, welding fumes, and dusts are in place.
  - c) Welding and flame cutting in the flammable vicinity or near the combustible substances/materials shall only be done in accordance to PTW procedures.
- 10.2 CONTRACTOR shall ensure adequate number of suitable fire extinguishers at the sites nearby the hot WORK area.

### 11. Abrasive Wheels

- 11.1 CONTRACTOR shall ensure ONLY trained and competent personnel are permitted to work with grinding machines and abrasive wheels.
- 11.2 CONTRACTOR shall ensure that personnel working with grinding machines and abrasive wheels are provided with the safety protections i.e. goggles, shields and/or hearing protection devices (HPD) which shall be used at all times during work.
- 11.3 When changing discs on a portable grinder, it is imperative that a suitable replacement disc is fitted and installed as per maker's instruction.

### 12. Grit Blasting

- 12.1 CONTRACTOR shall acquire hot work permit from Master prior to grit blasting outside shipyard.
- 12.1 CONTRACTOR shall provide the air face mask and oil free air supply to the blaster which are approved by International or local standard.
- 12.3 Associated workers and any other personnel surrounding the blasting area shall wear the approved respiratory protection.

# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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- 12.4 All blasting guns shall have a 'dead man' safety device manually operated by the blaster and under no circumstances; the device shall be tied back or defeated.
- 12.5 CONTRACTOR shall make efforts and take necessary actions to minimize the exposure of blasting grit to the environment.
- 12.6 The protective shield shall be provided and notice board shall be posted in order to prevent the exposure of blasting grit to other workers in the vicinity.

### 13. Use of Chemicals

- 13.1 CONTRACTOR shall declare to Master on any hazardous chemicals used for work.
- 13.2 CONTRACTOR shall ensure all requirements for use, storage, handling and transportation of chemicals including wearing a proper personal protection as outlined in the Material Safety Data Sheet (MSDS) are strictly followed.
- 13.3 The MSDS for all chemicals shall be made available in English.
- 13.4 When in doubt concerning these requirements, CONTRACTOR shall consult with MISC's Superintendent, Master or Safety Officer.
- 13.5 Flammable chemicals such as solvents and cleaning agents shall not be stored or used in unventilated areas or in close proximity of any sources of ignition. These chemicals shall be stored in a designated area whenever they are not being used.
- 13.6 All chemical containers shall be properly labeled accordingly.
- 13.7 CONTRACTOR shall ensure that smoking and any other actions which may cause ignition i.e. welding, cutting, grinding and hot work are STRICTLY PROHIBITED in the vicinity of any such chemical.

### 14. Use/Handling of Asbestos or Asbestos-Containing Materials

- 14.1 The use of any asbestos or asbestos-containing materials is STRICTLY PROHIBITED.
- 14.2 However, for work that requires handling/removal of asbestos or asbestos-containing materials at site, CONTRACTOR shall take necessary precautions to ensure the personnel and others are protected from the exposure of asbestos fibres.

### 15. Barricade, Platforms and Guardrails.

- 15.1 CONTRACTOR shall provide adequate barricades, covers, guardrails, signal flag persons or other appropriate warning devices to protect personnel near any hazardous operations or overhead work.
- 15.2 Temporary covers for floor openings shall be firmly fastened and clearly identified by warning signs. All permanent and temporary elevated work areas, walkway, platforms shall be protected by an approved guardrail and shall provide a secure working space.

### 16. Scaffold

- 16.1 Safe means of access shall be provided for any work to be carried out at a height greater than 2 meters above ground. If a suitable permanent access is not available, a well-designed, erected, inspected and maintained scaffold will provide a safe mean of access and safe working areas.
- 16.2 Additionally, safe access to scaffold work platforms by ladder shall be provided.
- 16.3 All scaffolding materials and components shall comply with local or international requirement.

#### a) Inspection

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## (Part II– SPECIFIC HSE Requirements)

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A scaffold inspector shall inspect all scaffold materials. Any scaffold above 40 meters shall be designed and endorsed by a professional structural engineer and copy of design forwarded to local authority.

### **b) Erection**

Scaffolds shall only be erected, altered or dismantled by competent scaffolder under supervision of a scaffolder supervisor. All inspection of scaffolds shall be done by a competent scaffold inspector.

## **17. Office**

17.1 CONTRACTOR shall maintain comfortable working condition in office for MISC staff:

- a) Temp 20-26°C
- b) Adequate ventilation
- c) No smoking policy
- d) Adequate lighting Welfare facilities e.g. toilet, prayer room and eating areas
- e) Daily cleaning service
- f) Passage ways are cleared and tripping hazards identified and removed
- g) Emergency plans for evacuation
- h) Car park well lit
- i) First aid boxes provided

## **18. Storage/Warehouse**

18.1 CONTRACTOR shall provide appropriate storage facilities for the storing of material, chemical and fuel on sites. The requirements for storing shall include the following:

- a) Written procedures on transportation, handling and disposal for all material shall be made available
- b) Good housekeeping shall be practiced at all storage facilities
- c) Storage buildings and warehouses shall be provided with an approved lightings and fittings in compliance with hazardous area classification, well ventilated, spill containment, waste collection and treatment where deem appropriate for the chemicals or fuel stored.
- d) Adequate number of appropriate fire extinguishers shall be made available at strategic locations at all storage areas and warehouses.
- e) All personnel shall wear approved PPE whilst working in storage areas and warehouses.
- f) Flammable and combustible liquids shall be stored separately in different storage buildings
- g) Storage rooms shall be constructed to meet the specified fire resistant rating suitable for their use
- h) Approved safety cans/cabinets/containers shall be used to store and transfer flammable and combustible liquids, with the name of the material clearly stamped
- i) "No Smoking" signs shall be posted at strategic locations in storage areas and warehouses which stores flammable and combustible liquids.

## **19. Driving Safety**

19.1 CONTRACTOR personnel traveling to and from work site shall use proper means of transport that comply with the regulatory requirements.

19.3 The allowable speed limit shall be set by the CONTRACTOR and suitable road signs shall be placed at the work site.

# **Health, Safety and Environment Requirements for Contractors**

## **(Part II– SPECIFIC HSE Requirements)**

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19.5 CONTRACTOR shall enhance the awareness of safe driving amongst its employees and SUB-CONTRACTORS. Training shall include wearing of seat belt, observing the speed limit, maintain good vehicle condition, and possess valid driving license.

### **20. Transportation**

20.1 All travels or shipment by air, land or sea, CONTRACTOR shall provide safe means of transportation for personnel and equipment.

20.2 In the event that MISC is providing means of transport for either personnel or equipment, then CONTRACTOR and SUB-CONTRACTOR's personnel should adhere to the instructions and requirements of MISC.

### **21. Lifting**

21.1 All cranes supplied by CONTRACTOR shall possess valid certificate of fitness issued by Class or local authority.

21.2 All cranes and associated lifting equipment i.e. all wire ropes, chains, and slings shall be inspected, and tested to ensure they are in safe working conditions.

21.3 All defective cranes shall be taken out of service, repaired or replaced if necessary. Whenever there is any doubt on the integrity of the crane, load test shall be performed

21.4 All inspected and tested lifting appliances shall be tag or marked in colour coded.

21.5 CONTRACTOR is responsible to ensure that ONLY competent and authorized operator can operate any lifting device. CONTRACTOR shall also designate a signal man to signal the operator as necessary to properly place and control the loads.

21.6 Prior to performing any lifting operation, the operator shall determine the weight of the object being lifted and ensure that cables, lifting device, slings, wire ropes, chains etc. used are of a sufficient strength to support the weight of the load.

21.7 No personnel or person shall be allowed to walk or stand under the load. Tag lines shall be used to guide and control the load where excessive movement is possible.

### **22. Heavy Machinery**

22.1 All CONTRACTOR vehicles on any site shall have proper insurance and maintained in safe operating conditions.

22.2 All heavy machineries shall be operated by competent and certified operators. They shall be operated in a safe manner and at a speed suited to the terrain and weather conditions.

22.3 All cranes, stringing trucks, heavy tracked equipment and machinery, welding rigs and all vehicles shall be fitted with reverse alarms.

22.4 Any vehicle with restricted vision shall not operate in the vicinity of workers, except under the direction of a designated worker who is ensuring that the path way is clear and safe.

### **23. Working at Height**

23.1 Safety harness is required when working above two (2) meters and CONTRACTOR must obtain PTW approval from Master.

### **24. Air Hose**

24.1 Air hose should not be used to clean any part of the body or clothing or to blow off dirt on the floor.

# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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### 25. Radiography

- 25.1 CONTRACTOR shall obtain PTW for radiography work. Extra precautions shall be taken to keep away all non-relevant personnel from the area. The area shall be isolated by visible barricades, signs, warning lights etc. The source shall be stored according to approved procedure.
- 25.2 CONTRACTOR shall employ only qualified radiography operators for the job. Proper calibrated radiation survey meters shall be made available.

### 26. Risk Assessment (RA)

- 26.1 Prior to performance of WORK, CONTRACTOR shall implement RA as a safety precaution to eliminate or guard against hazards of a specified job. The RA methodology shall include the following:
  - a) Study the job and develop basic job steps
  - b) Identify the hazards for each job step
  - c) Identify the safety precautions and mitigation measures to be taken for each job step
  - d) Record the RA and brief all workers on the hazards, precautions and mitigations to be taken.

### 27. HSE Inspection/Audit

- 27.1 Prior to commencement of WORK, CONTRACTOR is required to inspect the work site and equipment to ensure that WORK can be performed safely.
- 27.2 In addition, CONTRACTOR shall perform HSE inspection/audits throughout the WORK and shall promptly implement all recommendations made pursuant to the said inspection/audit.
- 27.3 MISC shall have the right to conduct its own HSE Inspection/audit at the work site and CONTRACTOR shall comply with all recommendations arising from such inspection/audit.

### 28. HSE Induction

- 28.1 CONTRACTOR Own Induction Program
  - a) CONTRACTOR shall implement HSE site induction and identify its employees who need to attend the HSE induction program. The induction briefing which is applicable to all CONTRACTOR's and SUB-CONTRACTOR's employees shall be done at site prior to the commencing of the WORK.
  - b) All cost incurred shall be borne by the CONTRACTOR.

### 29. Toolbox Meeting

- 29.1 CONTRACTOR shall ensure that his appointed WORK supervisor hold 'TOOL BOX' Meeting daily or prior to each shift.
- 29.2 Specific topics shall include hazards relevant to current work, review of accidents, near misses and deficiencies and/or any new equipment or machinery.
- 29.3 CONTRACTOR shall maintain records of attendance and submit to MISC as and when required.

### 30. HSE Meetings

- 30.1 Shipyard CONTRACTOR shall form a HSE Committee at work site and shall hold regular meetings, and maintain an active interest in HSE.
- 30.2 The meeting shall be attended by CONTRACTOR's management and workers' representatives and MISC site manager or Superintendent.



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## (Part II– SPECIFIC HSE Requirements)

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30.3 The minutes of meeting shall be recorded and distributed to all attendees.

### 31. Occupational Health

- 31.1 CONTRACTOR shall ensure that all its employees and SUB-CONTRACTOR's employees engaged in the work are medically (physical and mental) fit for the job and healthy.
- 31.3 In case of emergencies, MISC may provide necessary emergency arrangements, the cost of which shall be reimbursed by the CONTRACTOR.
- 31.4 CONTRACTOR shall at its own expenses have a completed first aid station on site and make arrangement for availability of an ambulance. This station shall be manned during all working hours.
- 31.5 CONTRACTOR shall ensure that its personnel and SUB-CONTRACTOR's personnel maintain a high standard of hygiene during execution of the work. The CONTRACTOR shall provide where necessary sufficient hygienic drinking fluids and hygienic toilet facilities to meet health and related regulatory requirements.

### 32. Health Risk Assessment

- 32.1 CONTRACTOR shall identify the health hazards and create an inventory at the workplace, assess the risk to health associated with exposure to these agents, decide on the control measures required (if any), and remove or reduce the risk to health to a level "As Low As Reasonably Practicable" (ALARP).

### 33. Drugs and Alcohol

- 33.1 The use, sale, dispensing or possession of drugs, narcotics and alcoholic beverages is STRICTLY PROHIBITED on the sites and at any place where the work is performed.
- 33.2 CONTRACTOR shall ensure that its personnel do not at any time, during the performance of the work, partake, bring onto the work site, or be under the influence of any alcoholic liquor, drug or other intoxicating substance. This prohibition shall also cover all legal or prescription drugs which may impair an employee's ability to perform his job safely.
- 33.3 MISC reserves the right to randomly require CONTRACTOR's or SUB-CONTRACTOR's employees, to undergo drug and alcohol tests at any time which shall be arranged and borne by MISC.
- 33.5 Shall any incidents or accidents occurred, the drugs and alcohol tests shall be conducted immediately at CONTRACTOR's own cost.
- 33.6 CONTRACTOR shall ensure that each and every person engaged by it or on its behalf to perform any element of the work (including SUB-CONTRACTOR) are advised on the local laws relating to the usage, selling, dispensing, importation and/or possession of drugs.

### 34. Environmental Management

- 34.1 CONTRACTOR shall establish and implement an Environmental Management Plan that details the practices, procedures and control measures for effective management of environmental aspects and impacts, as required by the relevant authority and MISC.
- 34.2 Environmental aspects include, but not limited to:
- a) Use of resources, e.g. chemicals, water, energy, fuel, etc.
  - b) Air emissions
  - c) Waste water discharges
  - d) Public nuisance, e.g. noise, odour, dust, etc.
  - e) Wastes generation

# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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34.3 CONTRACTOR shall develop a waste management plan in accordance with any requirements from MISC and the relevant authorities. This plan shall inventorise all types of wastes and states their method of disposal and make available before the commencement of any work.

This plan shall be regularly updated as conditions change. CONTRACTOR shall handle, sort and dispose all types of wastes in conformance with the relevant procedures and requirements.

34.4 CONTRACTOR shall ensure spill prevention is practiced and in place, where necessary. E.g. chemicals/fuel is stored in durable containers, secondary containment at the chemical/fuel storage area and during handling of chemicals/fuel, etc. which are labeled properly.

### 35. Security

35.1 CONTRACTOR, at its own cost, shall provide security measures and adequate number of security personnel who are trained and certified to safeguard the work site from any threat, damage or theft of properties.

35.2 CONTRACTOR security personnel shall be equipped with communication equipment and able to contact police and other emergency units as and when required.

35.3 CONTRACTOR shall provide shelter, facilities and amenities to enable security functions or duties to perform satisfactorily to the requirements of MISC.

### 36. Emergency Response Preparedness

36.1 CONTRACTOR, at its own cost, shall ensure there is adequate emergency response capability at site, which shall include at least the following;

- a) Emergency response procedures
- b) Firefighting equipment
- c) Fire prevention program
- d) First aid medical personnel and facilities

36.2 CONTRACTOR personnel shall be trained and competent in the use of firefighting equipment.

36.3 CONTRACTOR shall also ensure its first aiders are trained and competent to render such services.

### 37. CONTRACTOR Training Records

37.1 CONTRACTOR shall provide adequate training to all its personnel to ensure that they have sufficient knowledge and skill to undertake the assigned tasks.

37.2 CONTRACTOR shall establish a document control system to maintain their training records.

### 38. HSE Performance Targets

38.1 In line with MISC HSE policy, objectives and performance targets, CONTRACTOR shall set appropriate HSE objectives, develop and implement HSE programs to achieve the set performance targets.

### 39. CONTRACTOR HSE Performance Reports

39.1 CONTRACTOR shall compile and submit HSE performance report to MISC when requested. CONTRACTOR shall ensure all HSE performance reports and records are maintained and updated as and when required.



# Health, Safety and Environment Requirements for Contractors

## (Part II– SPECIFIC HSE Requirements)

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### 40. Incident Notification and Investigation

- 40.1 Any incident involving MISC, CONTRACTOR's, SUB-CONTRACTOR's or any third party personnel, plant or equipment, shall be immediately reported to MISC, irrespective of whether there is injury to personnel or damage to plant or equipment.
- 40.2 All incidents that resulted in or have the potential to cause and escalate serious injuries or property damage shall be suitably investigated and analyzed by CONTRACTOR and reported to MISC.
- 40.3 CONTRACTOR shall keep a copy of all incident reports at site.
- 40.4 CONTRACTOR is required to investigate and report any major accident to local authority in accordance with the local regulatory requirements. The investigation and report shall not preclude any similar investigations and reports required by the governmental authority in accordance with any relevant laws and regulations and may be handled concurrently with them.
- 40.5 CONTRACTOR shall prepare a close-out report of its HSE performance complete with Incidents statistics when requested by MISC.

### 41. HSE Statistics Board

- 41.1 In line with MISC's objective to promote safety awareness and safe working practices amongst all employees and CONTRACTOR personnel, the CONTRACTOR shall install a HSE Performance Scoreboard to highlight achievement/milestone of safe working hours of employees.
- 41.2 The CONTRACTOR shall install the above at each site office. The HSE Performance Scoreboard shall be of acceptable material and shall contain the following information as a minimum in English or local language:
  - a) Name of CONTRACTOR \_\_\_\_\_
  - b) Date (Start of Work) \_\_\_\_\_
  - c) HSE Targets for This Project \_\_\_\_\_
  - d) Best Achievement (Manhours, Year) \_\_\_\_\_
  - e) Current Manhours Achieved (Manhours, Year) \_\_\_\_\_
  - f) Date of Last Loss Time Incident \_\_\_\_\_
  - g) Total Number of Loss Time Incidents to-date \_\_\_\_\_
- 41.3 All lettering in the HSE Performance Scoreboard shall be of suitable sizes and visible.

# Health, Safety and Environment Requirements for Contractors

## (PART III : Consequence Management For HSE Non-Compliance)



### PART III – CONSEQUENCE MANAGEMENT FOR HSE NON-COMPLIANCE

#### 1. List of HSE Non-compliance

No	HSE Non-compliance	Example of cases	Category of Non-Compliance	Remark
1	PTW	1.1 Working without Permit To Work ("PTW") (ZETO Rule 1)	<b>Major</b>	
		1.2 Working with expired PTW (ZETO Rule 1)	<b>Major</b>	
		1.3 Non-compliance with PTW requirements	<b>Major</b>	
		1.4 Damaged or loss of PTW	<b>Minor</b>	
2	Chemical Handling	2.1 Failing to use personal protective equipment when handling hazardous chemicals (ZETO Rule 2)	<b>Major</b>	
3	Personal Protective Equipment (PPE)	3.1 Failing to use / Misusing / Modifying PPE/ Using substandard PPE (ZETO Rule 2)	<b>Major</b>	
4	Energy Isolation	4.1 Failing to verify energy isolation before starting work (ZETO Rule 4)	<b>Major</b>	
		4.2 Working with expired Physical Isolation Certificate(PIC)/Electrical Isolation Certificate(EIC)/Radiation Certificate	<b>Major</b>	
		4.3 Non-compliance with PIC/EIC/Radiation Certificate requirements	<b>Major</b>	
		4.4 Damaged or loss of PIC/EIC/Radiation Certificate	<b>Minor</b>	
5	Working in Confined Space	5.1 Failing to obtain authorization before entering a confined space (ZETO Rule 5)	<b>Major</b>	
		5.2 Working with expired Confined Space Entry (CSE) Certificate	<b>Major</b>	
		5.3 Non-compliance with CSE Certificate requirements	<b>Major</b>	
		5.4 Damaged or loss of CSE Certificate	<b>Minor</b>	
6	Safety	6.1 Failing to obtain authorization	<b>Major</b>	

# Health, Safety and Environment Requirements for Contractors

## (PART III : Consequence Management For HSE Non-Compliance)



	Equipment Bypass	<p>before overriding or disabling safety critical equipment (ZETO Rule 6)</p> <p>6.2 Working with expired Safety Critical Equipment (SCE) Bypass Certificate</p> <p>6.3 Non-compliance with SCE Bypass Certificate requirements</p> <p>6.4 Damaged or loss of SCE Bypass Certificate</p>	<p><b>Major</b></p> <p><b>Major</b></p> <p><b>Minor</b></p>	
7	Working at Height	7.1 Failing to protect yourself against a fall when working at height (ZETO Rule 7)	<b>Major</b>	
8	Lifting Operations	<p>8.1 Position yourself under a suspended load (ZETO Rule 8)</p> <p>8.2 Working with expired Lifting Certificate</p> <p>8.3 Non-compliance with Lifting Certificate requirements</p> <p>8.4 Damaged or loss of Lifting Certificate</p>	<p><b>Major</b></p> <p><b>Major</b></p> <p><b>Major</b></p> <p><b>Minor</b></p>	
9	Ignition Source Control	<p>9.1 Smoking outside designated areas in the process area (ZETO Rule 9)</p> <p>9.2 Bringing in potential ignition sources into process area with authorization (ZETO Rule 9)</p> <p>9.3 Non-compliance with Hot Work Permit requirements</p> <p>9.4 Damaged or loss of Hot Work Permit</p>	<p><b>Major</b></p> <p><b>Major</b></p> <p><b>Major</b></p> <p><b>Minor</b></p>	
10	Substance Misuse	<p>10.1 Tested positive for Alcohol (ZETO Rule 9)</p> <p>10.2 Tested positive for prohibited drugs (ZETO Rule 9)</p>	<p><b>Major</b></p> <p><b>Major</b></p>	For drug case, samples shall be sent to MISC approved laboratory for confirmation. Personnel shall be banned temporarily until final test result is received.
11	Driving	<p>11.1 Using your mobile phone / walkie-talkie while driving</p> <p>11.2 Failing to follow speed limit</p> <p>11.3 Failing to use seatbelt</p> <p>11.4 Traffic violations e.g. driving / operating vehicle without license</p> <p>11.5 Parking violation e.g. unauthorized zone, obstructed</p>	<p><b>Major</b></p> <p><b>Major</b></p> <p><b>Major</b></p> <p><b>Major</b></p> <p><b>Minor</b></p>	

**Health, Safety and Environment Requirements for Contractors  
(PART III : Consequence Management For HSE Non-Compliance)**



		other traffic, access way 11.6 Overloading / transport material or passengers in unsafe manner	<b>Minor</b>	
12	Regulatory non-compliance	12.1 Non-compliance with regulatory requirements e.g. Occupational Safety and Health Act, Environment Quality Act, Factories and Machinery Act, Atomic Energy Licensing Act, Fire Services Act etc. that may expose MISC to stop work order, written warning or fines	<b>Major</b>	
13	Plant and Emergency Equipment	13.1 Tampering with / Damaging plant or emergency equipment	<b>Major</b>	
14	Criminal / civil offenses	14.1 Criminal / civil offenses committed anywhere within the site – e.g. gambling, theft, falsification of documents, harassment, vandalism, sabotage or fighting.	<b>Major</b>	
15	Sleeping / Horseplay	15.1 Sleeping while on duty / Horseplay	<b>Major</b>	
16	Tools & Equipment	16.1 Misusing / Modifying / tools or equipment/ Using substandard tools or equipment	<b>Major</b>	
17	Others	17.1 Any non-compliance not listed above		Shall be based on decision made by MISC.

**Health, Safety and Environment Requirements for Contractors  
(PART III : Consequence Management For HSE Non-Compliance)**



**2. Consequence Management for HSE Non-Compliance**

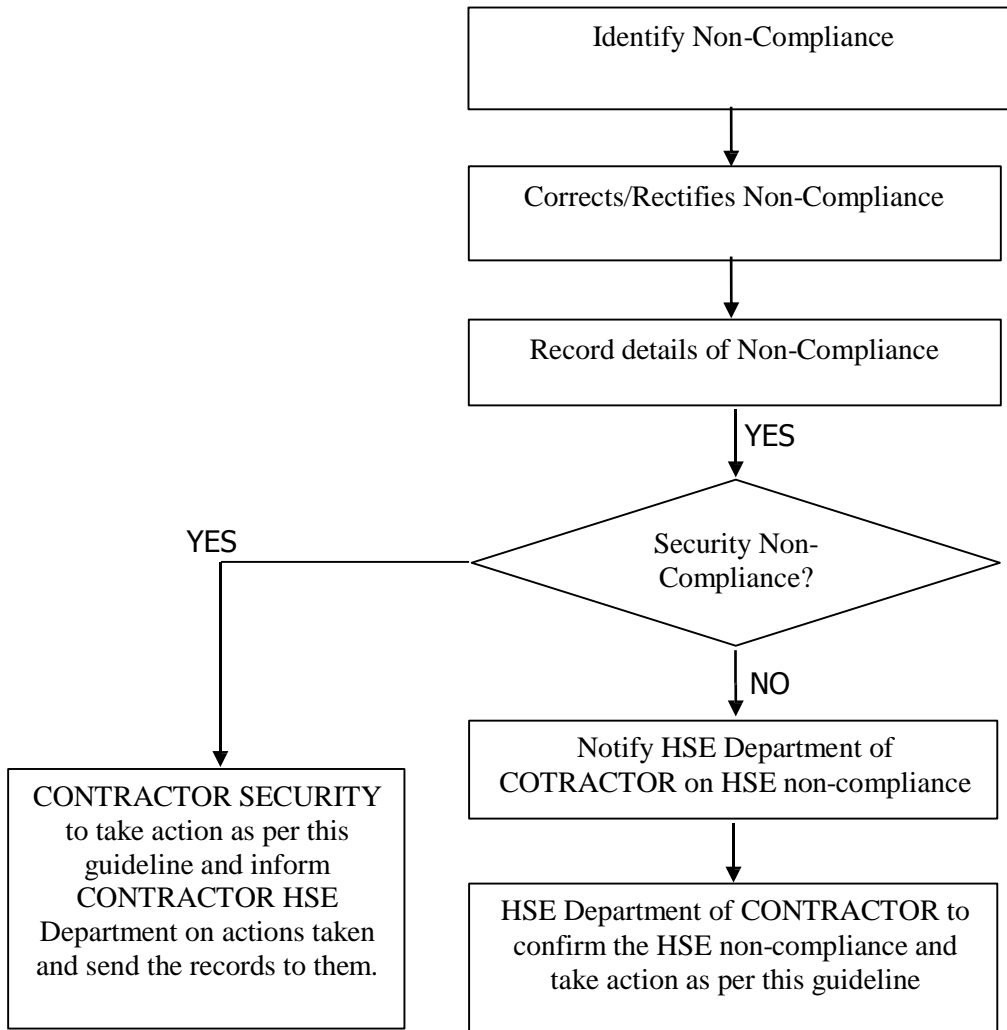
Type of Non-Compliance	CONTRACTOR'S Personnel	Remark
<b>Minor</b>	1 <sup>st</sup> offence – verbal warning / counseling  2 <sup>nd</sup> offence – 1 day suspension from entering MISC facility  3 <sup>rd</sup> offence – suspension up to 7 days from entering MISC facility	Repeated Minor offence for more than 3 times will escalate to Major offence
<b>Major</b>	1 <sup>st</sup> offence – suspension up to 1 month from entering MISC facility  2 <sup>nd</sup> offence –Ban from entering MISC facility	

# Health, Safety and Environment Requirements for Contractors

## (PART III : Consequence Management For HSE Non-Compliance)



### 3. Process Flow on Consequence Management for HSE Non-Compliance



# Health, Safety, Security and Environment Requirements for Contractors (Attachment I: PPE Matrix Requirements)



ACTIVITY \ PPE	PPE												
	Safety Overall (Boiler suit) (See remark a)	Safety Shoes	Safety Helmet	Helmet with	Safety Eyewear (See remark b)	Ear Defenders	Safety Harness with safety lines	Safety Gloves. (See Remark c)	Apron (See remark d)	Non Respiratory Type Mask	Life Vest	Personnel Gas Detector	Chemical Suit (See Remark e)
Working on Deck					3			1/2/4/5/6					
Working in Machinery space					3			1/2/4/5/6					
Mooring operations					3			4/6					
Anchoring operations					1			4/6					
Cargo operations					2/3			6					1/2
Bunker operations					2/3			1/4/6					
Lifting operations					3			4/6					
Wire handling					3			1/3/4/6					
Working in side Lifeboats					1/3			6					
Working Over side (Shipside /Gangway / Pilot ladder)					3			4/6					
Working with Gangway Magnets					3			4					
Working at Height					3			4/6					
De-scaling using power tools					1			4/6					
Painting					1/2			1/6					
Handling Chemicals					2			1					
Hot Work					4			2	1				
Entry into Enclosed Space					2/3			1/4/6					1/2
Working with Power Tool e.g. Grinder, drill, lathe machine etc. (Fixed and Portable)					1			4/5					
Working on Electrical Equipment	1				3			5					
Working on Hydraulic System					2			1/4/6					
Working on Pressure Pipelines/Vessels					1/2/ 3			4/6					
Working on Steam					2/3			6					
Cooking and Catering Activities								3					
Tank Entry in dangerous Atmosphere													1
Tank Cleaning Operations					2/3			1					1/2
Deck / Engine tours/visit					3			7					



AT ALL TIMES



AS REQUIRED

# Health, Safety, Security and Environment Requirements for Contractors (Attachment I: PPE Matrix Requirements)



## Remark/Note:

a) **When working on live circuits and switch boards the competent person shall wear**

1. Flame retardant coveralls.

b) **Different type of Safety Eyewear used will be as follows:**

1. Safety Goggles

2. Chemical Splash Goggles.

3. Safety Spectacles

4. Welding/Gas cutting safety goggles.

c) **Different type of Safety Gloves used will be as follows:**

1. Oil/ Chemical/ Acid Resistance

2. Welding/ Cutting

3. Cut & Abrasion Resistant

4. Impact Resistance

5. Electrical Insulated Rubber Gloves

6. Leather Gloves.

7. Cotton glove

**Cotton Gloves to be used only for hygiene purpose when taking inspection on deck or engine tours but not to be used for any type of physical works**

- The actual type of PPE on above shall be assessed based on the hazards identified during Risk Assessment. If different components of the work have greatly differing requirements, you may need to change PPE during the course of the work. The decision shall be made by the Shipboard Management Team with due diligence. The agreed PPE shall be conveyed at Tool box meeting, prior commencement of tasks and verified by Safety Officer and/or assigned leader.

d) **For Hot work operations fire retardant apron to be worn.**

e) **Different type of Chemical suit will be as follows:-**

1. Gas tight.

2. Splash.

- Whilst Handling Chemicals additional PPE and Safety requirements in accordance to MSDS and IBC must be complied. Please refer to the Master for any additional PPE requirements for a particular job. In Chemical vessels, Level of Protection (LoP PPE) shall be referred in MFM/05C.
- Respirator type Face Mask is not permitted; Self Contained Breathing Apparatus (BA) sets must be used.
- Should there be any deviation required, SMT to reflect in the RA and toolbox meeting with approval from the Master or Chief Engineer and Vessel Superintendent shall be informed of the deviation before commencement of the job, except for emergency cases.





