

Health, Safety, Security and Environment Requirements for Contractors

This document is strictly confidential and proprietary of MISC Berhad and its Group of Companies ("MISC"). No information herein or in respect of this document may be communicated or disclosed to any third party, or reproduced (in any form), without the prior written permission of the Vice President, Group HSSE, MISC. This document and/or information herein shall not be used for any other purpose than its original purpose. MISC assumes no responsibility or liability for any unauthorized disclosure or use of the said information and reserves its legal rights on the same.

© 2023 MISC Berhad ® (MISC)

REV: 4		DATE: 09 February 2023	
PREPARED BY	REVIEWED BY	ENDORSED BY	APPROVED BY
Sugar.	PM:	Jame	(Kaja Jagu
Ms. Siti Syuhada Abdullah	Ms. Panimalar Baskaran	Capt. Ramesh Chinnappan	Capt. Raja Sager
Executive Learning & Development	Head Policies & Strategies	Head Health, Safety & Assurance	Vice President Group HSSE



Document Classification

Document Security		
SECRET		
CONFIDENTIAL		
INTERNAL USE		
OPEN	Х	

Document Structure		
Level 1: Policy		
Level 2: Standards / Guidelines / Framework	X	
Level 3: Manuals / Procedures / Work Instructions		
Level 4: Records		



REVISION HISTORY

REV NO.	DATE	REVISION DETAILS	STATUS	PREPARED BY	ENDORSEMENT OF CUSTODIAN
0	Oct 2012	New Release	Effective	-	-
2	Apr 2015		Effective	-	-
3	Sept 2016		Effective	Capt. Ravi Chanthran Sithambaram	-
4	Feb 2023		Effective	Siti Syuhada Abdullah	Capt. Ramesh Chinnappan



TABLE OF CONTENTS

PART 1: 0	GENERAL HSSE REQUIREMENTS	6
1.1	Compliance with Laws/Regulations/MISC Requirements	6
1.2	CONTRACTOR's Written Policy/Organization	6
1.3	Protection of Workers, Public, Environment and Assets	7
1.4	Right to Stop Work	7
1.5	Maintain Equipment, Tools and Machinery in a Safe Condition	7
1.6	Risk Management and Hazards Identification	7
1.7	Competent Personnel	8
1.8	HSSE Awareness	8
1.9	Incident Reporting and Investigation	8
1.10	Housekeeping	9
PART 2: S	SPECIFIC HSSE REQUIREMENTS	10
2.1	Site Safety and Health Officer ("SHO")/Safety Supervisor	10
2.2	Project HSSE Plan	10
2.3	Equipment, Tools and Machinery Inspections	10
2.4	Personal Protective Equipment ("PPE")	11
2.5	Inspection and Tagging of Mechanical Equipment	11
2.6	Working in Confined Space	11
2.7	Permit To Work (PTW)	12
2.8	Tools and Equipment	12
2.9	Compressed Gas Cylinders	12
2.10	Welding and Cutting	13
2.11	Abrasive Wheels	13
2.12	Grit Blasting	13
2.13	Use of Chemicals	13
2.14	Use/Handling of Asbestos or Asbestos-Containing Materials	14
2.15	Barricade, Platforms and Guardrails	14
2.16	Scaffold	14
2.17	Office	15
2.18	Storage/Warehouse	15
2.19	Driving Safety	15
2.20	Transportation	16
2.21	Lifting	16



2.22	Heavy Machinery	16
2.23	Working at Height	17
2.24	Air Hose	17
2.25	Radiography	17
2.26	Risk Assessment (RA)	17
2.27	HSSE Inspection/Audit	17
2.28	HSSE Induction	18
2.29	Toolbox Meeting	18
2.30	HSSE Meetings	18
2.31	Occupational Health	18
2.32	Health Risk Assessment	19
2.33	Substance Misuse	19
2.34	Environmental Management	
2.35	Security	21
2.36	Emergency Response Preparedness	21
2.37	CONTRACTOR Training Records	
2.38	HSSE Performance Targets	
2.39	CONTRACTOR HSSE Performance Reports	
2.40	Incident Notification, Investigation and Reporting	22
2.41	HSSE Statistics Board	22
PART 3: H	HSSE NON-COMPLIANCE MANAGEMENT	23
3.1	HSSE Non-Compliance Management Process Flow	23
3.2	HSSE Non-Compliance Decision Process Flow	24
PART 4· (CONTRACTOR HSSE ASSURANCE	26



PART 1: GENERAL HSSE REQUIREMENTS

1.1 Compliance with Laws/Regulations/MISC Requirements

CONTRACTOR shall comply with all applicable Health, Safety, Security and Environmental (HSSE) 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, Security and Environment Management Systems, MISC Safety Rules, standards, procedures, 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 HSSE 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 HSSE inspection/audit at the WORKSITE to ensure CONTRACTOR's compliance to MISC's HSSE Requirements throughout the performance of the CONTRACT.

CONTRACTOR shall take all necessary HSSE 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.

The applicability and modes of adoption of the MISC Health, Safety, Security and Environment Requirements for Contractors across the MISC Group of Companies are described in Sections 1.4, 5.3 and 5.4 of the MGMF. Adaptation, where needed, to suit specific businesses is permissible, provided the original intent of MISC Health, Safety, Security and Environment Requirements for Contractors is kept intact.

1.2 CONTRACTOR's Written Policy/Organization

CONTRACTOR shall acknowledge MISC's strong commitment to MISC's HSSE Requirements and affirms that it has a written HSSE policy which is of a standard acceptable to MISC HSSE policies. CONTRACTOR shall further affirm that its HSSE policy is applied and exercised by all its personnel including SUB-CONTRACTOR's personnel ("Personnel") when performing WORK.

CONTRACTOR shall observe and adhere to MISC Berhad's policies, procedures and guidelines generally applicable to employees and contractors of MISC Berhad including MISC Code of Conduct and Business Ethics ("CoBE"), MISC Anti-Bribery Policy Manual as well as any applicable anti-bribery law, including but not limited to the Malaysian Anti-Corruption Commission Act 2009, the United Kingdom Bribery Act 2010 and U.s Foreign Corrupt Practice Act of 1977 ("MISCABC Manual") and any subsequent amendments thereof; in particular COBE Section 26 is where the behaviours are setup.



1.3 Protection of Workers, Public, Environment and Assets

CONTRACTOR shall protect the health, safety and security 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.

1.4 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 HSSE 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.

1.5 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.

1.6 Risk Management and Hazards Identification

CONTRACTOR shall make assessment of the HSSE 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 HSSE 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.

1.7 Competent Personnel

CONTRACTOR shall ensure that its personnel are fully trained, certified and competent to carry out the tasks 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 HSSE related training conducted by a recognized training institution for all relevant personnel in connection with the work. All CONTRACTOR supervisory personnel shall attend relevant HSSE 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.

1.8 HSSE Awareness

CONTRACTOR shall be responsible for maintaining and enhancing the HSSE awareness among its personnel and SUB-CONTRACTOR's personnel, including but not limited to arranging HSSE induction, toolbox meetings, regular HSSE 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 HSSE meetings shall be submitted to MISC whenever requested.

1.9 Incident Reporting and Investigation

CONTRACTOR shall report to MISC immediately of the occurrence of any accident or incident including near misses while engaging with MISC assets or properties as per MISC HSSE incident notification and reporting requirements, to the Respective HSSE personnel immediately via e-mail or text message. CONTRACTOR shall also alert relevant authorities in relation to the incident whenever necessary.

CONTRACTOR shall ensure all incidents are investigated to identify the preventive and mitigative actions. 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 near misses.



1.10 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.



PART 2: SPECIFIC HSSE REQUIREMENTS

2.1 Site Safety and Health Officer ("SHO")/Safety Supervisor

CONTRACTOR shall provide qualified SHO or supervisor who is responsible to provide guidance and advice pertaining to Health, Safety, Security and Environment (HSSE) requirements of WORK.

The SHO responsibilities are;

- a) To guide CONTRACTOR's management on HSSE plan and its implementation, with equal diligence being paid to fulfilment 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.

CONTRACTOR shall submit the CV of the SHO or supervisors to MISC when requested.

2.2 Project HSSE Plan

CONTRACTOR shall prepare and submit a specific HSSE project plan to MISC as minimum as the followings:

- a) HSSE policies, targets and requirements
- b) Prevailing laws and regulations
- c) CONTRACTOR HSSE policy
- d) CONTRACTOR's organization including positions for HSSE manager and SHO
- e) HSSE responsibilities of CONTRACTOR key personnel
- f) Risk assessments including preventive and mitigating measures
- g) Description and schedule of HSSE activities
- h) Incident notification, investigation and reporting
- i) Emergency response plan

2.3 Equipment, Tools and Machinery Inspections

Prior to start of work, all equipment, tools and machinery related to the work must be inspected and fit for the work.

HSSE inspections throughout the WORK are to be maintained and performed continuously by the CONTRACTOR. All recommendations made by the inspectors to be promptly implemented without delay.

MISC has right to conduct its own HSSE inspection and/or audits at site and the CONTRACTOR shall comply with all the recommendations made.



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.

CONTRACTOR shall ensure only certified competent personnel are allowed to operate and/or maintain equipment, tools and machinery.

2.4 Personal Protective Equipment ("PPE")

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. The PPE must be suitable for the job as specified in the Permit To Work.

2.5 Inspection and Tagging of Mechanical Equipment

CONTRACTOR shall inspect and tag all mechanical equipment identified to be used. The equipment will include but may not be limited to the following:

- a) Cranes
- b) Forklifts
- 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
- i) Aerial Work Platforms
- k) Welding machine
- I) Grinding and cutting machine

Any inspected equipment which requires remedial work (or replacement) shall be at CONTRACTOR's costs.

2.6 Working in Confined Space

Prior entering Confined Spaces, Permit To Work shall be granted by the WORKSITE approving authority. 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.

The SHO or entry supervisor shall ensure that all necessary precautions and mitigation measures are implemented. CONTRACTOR shall ensure their personnel are medically fit to work in confined space.



2.7 Permit To Work (PTW)

CONTRACTOR shall comply with WORKSITE approving authority's PTW procedure if any activities such as hot work, cold work, lifting, confined space entry, radiography and underwater to be carried out. The PTW permits and certificates shall be approved by the AREA APPROVING AUTHORITY. CONTRACTOR shall continuously enforce the conditions and requirements of the permits including its validity.

2.8 Tools and Equipment

- a) 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.
- b) Tools shall only be used for the job they were designed to perform.
- c) All guards shall be fitted and in good condition at all times.
- d) All grinding discs shall be checked for correct size and speed prior fitting.
- e) Electrically powered tools shall meet the hazardous zones requirements (if applicable).
- f) All electric cables shall be certified and meet relevant industrial standards. All defective tools and equipment shall be prohibited from used.

2.9 Compressed Gas Cylinders

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.



2.10 Welding and Cutting

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.

CONTRACTOR shall ensure adequate number of suitable fire extinguishers at the sites nearby the hot WORK area.

2.11 Abrasive Wheels

- a) CONTRACTOR shall ensure ONLY trained and competent personnel are permitted to work with grinding machines and abrasive wheels.
- b) 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.
- c) When changing discs on a portable grinder, it is imperative that a suitable replacement disc is fitted and installed as per maker's instruction.

2.12 Grit Blasting

- a) CONTRACTOR shall acquire hot work permit from MISC prior to grit blasting outside shipyard.
- b) CONTRACTOR shall provide the air face mask and oil free air supply to the blaster which are approved by International or local standard.
- c) Associated workers and any other personnel surrounding the blasting area shall wear the approved respiratory protection.
- d) 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.
- e) CONTRACTOR shall make efforts and take necessary actions to minimize the exposure of blasting grit to the environment.
- f) 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.

2.13 Use of Chemicals

- a) CONTRACTOR shall declare on any hazardous chemicals used for work.
- b) CONTRACTOR shall ensure all requirements for use, storage, handling and transportation of chemicals including wearing a proper personal protection as outlined in the Safety Data Sheet (SDS) are strictly followed.



- c) The SDS for all chemicals shall be made available in English.
- d) When in doubt concerning these requirements, CONTRACTOR shall consult with MISC
- e) 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.
- f) All chemical containers shall be properly labelled accordingly.
- g) 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.

2.14 Use/Handling of Asbestos or Asbestos-Containing Materials

The use of any asbestos or asbestos-containing materials is STRICTLY PROHIBITED. 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.

2.15 Barricade, Platforms and Guardrails.

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.

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.

2.16 Scaffold

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. Additionally, safe access to scaffold work platforms by ladder shall be provided. All scaffolding materials and components shall comply with local or international requirement.

a) Inspection

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.



2.17 Office

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 and welfare facilities e.g. toilet, prayer room and eating areas
- e) Daily cleaning service
- f) Passageways are cleared and tripping hazards identified and removed
- g) Emergency plans for evacuation
- h) Car park well lit
- i) First aid boxes provided
- j) Fire protection and emergency equipment provided

2.18 Storage/Warehouse

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.

2.19 Driving Safety

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

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



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.

2.20 Transportation

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

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.

2.21 Lifting

- a) All cranes supplied by CONTRACTOR shall possess valid certificate of fitness issued by Class or local authority.
- b) 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.
- c) 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.
- d) All inspected and tested lifting appliances shall be tag or marked in colour coded.
- e) 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.
- f) 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.
- g) 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.

2.22 Heavy Machinery

- a) All CONTRACTOR vehicles on any site shall have proper insurance and maintained in safe operating conditions.
- b) 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.
- c) All cranes, stringing trucks, heavy tracked equipment and machinery, welding rigs and all vehicles shall be fitted with reverse alarms.
- d) 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.



2.23 Working at Height

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

2.24 Air Hose

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

2.25 Radiography

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.

CONTRACTOR shall employ only qualified radiography operators for the job. Proper calibrated radiation survey meters shall be made available.

2.26 Risk Assessment (RA)

Prior to performance of WORK, CONTRACTOR shall implement RA as a HSSE 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 HSSE 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.

2.27 HSSE Inspection/Audit

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



2.28 HSSE Induction

CONTRACTOR Own Induction Program

- a) CONTRACTOR shall implement HSSE site induction and identify its employees who need to attend the HSSE 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.

2.29 Toolbox Meeting

CONTRACTOR shall ensure that his appointed WORK supervisor hold 'TOOL BOX' Meeting daily or prior to each shift.

Specific topics shall include hazards relevant to current work, review of accidents, near misses and deficiencies and/or any new equipment or machinery.

CONTRACTOR shall maintain records of attendance and submit to MISC as and when required.

2.30 HSSE Meetings

CONTRACTOR shall form a HSSE Committee at work site and shall hold regular meetings, and maintain an active interest in HSSE.

The meeting shall be attended by CONTRACTOR's management and workers' representatives and MISC site manager or Superintendent.

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

2.31 Occupational Health

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. In case of emergencies, MISC may provide necessary emergency arrangements, the cost of which shall be reimbursed by the CONTRACTOR.

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.

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.



2.32 Health Risk Assessment

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).

2.33 Substance Misuse

- a) CONTRACTOR is required to always adhere to MISC Substance Misuse Policy when preforming services for MISC. Under this policy, SUBSTANCE includes any illegal drugs, alcoholic beverages, legal psychoactive drugs obtained or used without legal prescription, and legally prescribed psychoactive drugs consumed beyond their therapeutic or prescribed uses.
- b) Unauthorised consumption, possession, distribution, purchase or sale of any SUBSTANCE, or being under the influence of any SUBSTANCE either within its premises, or while performing work is STRICTLY PROHIBITED.
- c) MISC reserves the right to test and search for SUBSTANCES on any CONTRACTOR and SUB-CONTRACTOR and their employees, to the extent permitted by the law of the jurisdiction in which the individual is employed or engaged.
- d) CONTRACTORS who breach any provision of MISC Substance Misuse Policy will be barred from working at or visiting any MISC premises at MISC's sole discretion.
- e) CONTRACTORS shall implement Substance Misuse Control Programs as part of their HSSE Plan.
- f) Shall any incidents or accidents occurred, the Substance Misuse tests shall be conducted immediately at CONTRACTOR's own cost.
- g) 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 MISC Substance Misuse Policy and Guidelines and the law of the jurisdiction in which the individual is employed or engaged.

2.34 Environmental Management

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.

Environmental aspects include, but not limited to:

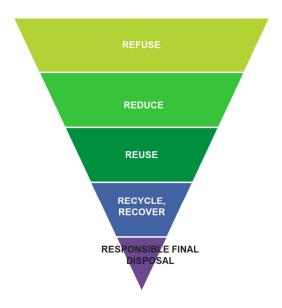
- a) Use of resources, e.g. chemicals, water, energy, fuel, etc.
- b) Air emissions
- c) Wastewater discharges
- d) Public nuisance, e.g. noise, odour, dust, etc.
- e) Wastes generation
- f) Greenhouse gases (GHG) emissions



CONTRACTOR shall have an effective environmental management system in place through which they are able to measure, monitor and manage the environmental aspects listed above.

CONTRACTOR shall measure complete, consistent, and accurate GHG emissions data from its activities, and report GHG emissions associated with the materials, product and/or services supplied to MISC in accordance with requirements set by MISC.

CONTRACTOR shall manage all wastes (hazardous and non-hazardous) generated from its activities in accordance with applicable laws and regulations. CONTRACTOR shall implement procedures to endeavour to minimize the generation of wastes and manage waste in accordance with the waste management hierarchy shown below.



CONTRACTOR shall develop a waste management plan in accordance with any requirements from MISC and the relevant authorities. This plan shall include an inventory of all types of wastes (hazardous and non-hazardous), their estimated quantities of generation, their hazardous properties (where relevant), arrangement and method for storage, and management methods. The plan shall be made 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.

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 labelled properly.



2.35 Security

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.

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

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

2.36 Emergency Response Preparedness

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

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

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

2.37 CONTRACTOR Training Records

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

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

2.38 HSSE Performance Targets

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

2.39 CONTRACTOR HSSE Performance Reports

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



2.40 Incident Notification, Investigation and Reporting

- a) 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, impact to environment or damage to plant or equipment.
- b) All incidents that resulted in or have the potential to cause and escalate serious injuries or property damage shall be suitably investigated and analysed by CONTRACTOR and reported to MISC.
- c) CONTRACTOR shall keep a copy of all incident reports at site.
- d) 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.
- e) CONTRACTOR shall prepare a close-out report of its HSSE performance complete with Incidents statistics when requested by MISC.

2.41 HSSE Statistics Board

In line with MISC's objective to promote HSSE awareness and safe working practices amongst all employees and CONTRACTOR personnel, the CONTRACTOR shall install a HSSE Performance Scoreboard to highlight achievement/milestone of safe working hours of employees.

The CONTRACTOR shall install the above at each site office. The HSSE 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) HSSE 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

All lettering in the HSSE Performance Scoreboard shall be of suitable sizes and visible.



PART 3: HSSE NON-COMPLIANCE MANAGEMENT

3.1 HSSE Non-Compliance Management Process Flow

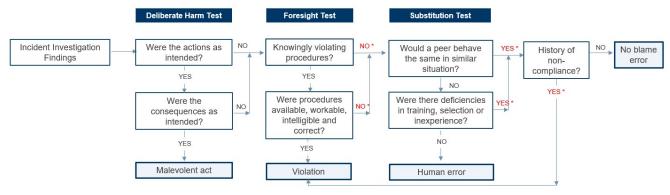
Step	Description
Notification of Incident, Safety Rules violation and any HSSE non-compliance	All incident, Safety Rules violation and HSSE non-compliance shall be reported to HSE.
2. Incident investigation	Incident investigation shall be carried out by a multidisciplinary team to identify the root causes.
3. Decision of valid breach of HSSE	Incident investigation team shall confirm if any breach of HSSE. If no breach, the incident investigation is closed.
	For any breach of HSSE, the decision shall be achieved either it is due to human error or violation, as per Section 3.3 process flow.
4. Validation of findings	Investigation findings and decision of breach of HSSE rules shall be presented to a Review Committee for validation and endorsement that a Corrective Counselling or Consequence
	Management must be taken.
	Note that Corrective Counselling is the result of error related non-compliance and Consequence Management is the result of violation related non-compliance.
5. Execution of actions	For Corrective Counselling, Contractor's HSE shall take appropriate action in providing training, mentoring, coaching or counselling to the Contractor's employees, as instructed.
	For Consequence Management, Contract Owner shall take appropriate action e.g. warning letter, ban from entry, etc.
	Contract Owner and Procurement shall ensure that HSSE non-compliances are taken into consideration as part of Vendor Performance Review.
6. Reporting	Contractor HSE shall report back the progress and completion of Contractor employees' Correction Counselling.



3.2 HSSE Non-Compliance Decision Process Flow

Generally, there are two (2) types of human failure or non-compliance; error and violation. Errors include slip and lapse and mistakes. Violations can be divided into situational, shortcuts and reckless including unintentional violation.

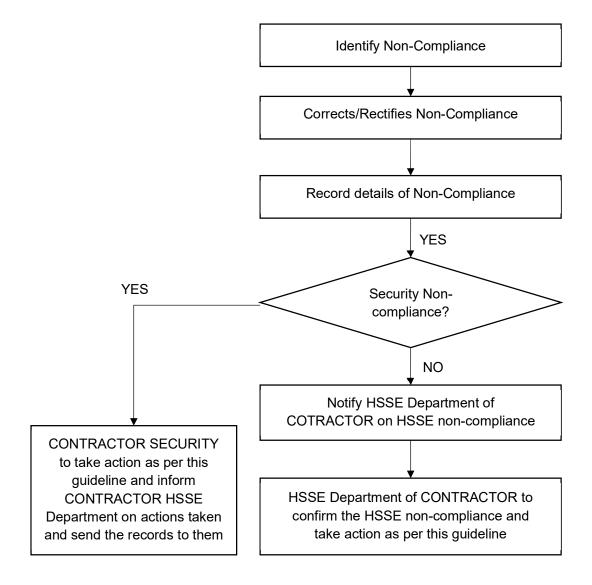
The incident investigation team shall consider all applicable factors to conclude the type of human failure involved, if any. This includes the incident investigation findings and analysis of human behaviour using an Incident Decision process flow, as shown below.



NOTE:

^{*} Potential system-induced violation/ error that requires evaluation and correction of the system







PART 4: CONTRACTOR HSSE ASSURANCE

- 4.1 CONTRACTOR HSE Assurance is an HSSE inspection / assessment of compliance to HSE MS and SeMS procedures, standards, and legislation, where applicable. This is applicable to the Contractors who're providing support and services to MISC Group of Companies. In consultation with MISC Group of Companies and in line to consideration to selection of entities, Group HSSE shall establish a list of CONTRACTORS to be assessed.
- **4.2** CONTRACTOR HSSE Assurance shall cover the applicable aspects of the HSE MS and SeMS element as below (but not limited to):
 - a) HSSE Leadership & Commitment
 - b) Compliance with the HSSE internal system and other relevant safe and security systems of work
 - c) HSSE features on facilities, equipment and/or implementation of HSSE Hazard Hierarchy of control and Correct use of personal protective equipment (PPE)
 - d) Reliability, serviceability and maintenance of work tools and equipment.
 - e) Emergency and contingency plan readiness and drills including use of fire-fighting equipment and first aid.
 - f) Employee HSSE awareness and Demonstration of safe and security work practices.
- 4.3 Notification to CONTRACTOR focal shall include a Letter of Intent (LOI) / Memorandum and Term of Reference (TOR), whereby a 14 days' notice shall be forwarded to Respective CONTRACTOR prior commencement of the exercise. Group HSSE evaluate compliances based on CONTRACTOR HSE Assurance Questionnaire & Checklist which will be provided prior to commencement of the exercise. This is to ensure that ample time is provided for the Contractor to complete the relevant HSSE Assurance Questionnaire.