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EHS Requirements for Critical Contractors

Document electronically released

EHS REQUIREMENTS FOR CRITICAL CONTRACTORS

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1 TERMINOLOGY, DEFINITIONS, ABBREVIATIONS

In this Document, the following words and phrases shall have the meaning assigned to them below:

Term	Definition
Confined Space	A space or structure, above or below ground, that is a space, large enough that employees can full bodily or partly (head, torso) enter and perform work, with one or several of the following characteristics: • limited openings for entry and exit; • restricted natural ventilation with an atmosphere that may be hazardous; • a design not made for continuous occupancy (space comfort, heat, humidity, coldness, darkness...); Examples: chamber (boiler furnace, coal bunker, condenser, de-aerator, ducting etc.), tank, vat, silo, pit, pipe, sewer, underground cable tunnels, fuel oil tanks, chemical storage tanks, drain tanks, de-aerator. Note: a place, cavity which is not a confined space at a time may become one during the construction works, and sometimes become again a confined space. Consequently, the project works/phase/task must anticipate this.
Contract	It means the contract or subcontract entered between PSM and the Contractor for the performance of Contract Works.
Contractor	A non-PSM company who under a contract, subcontract or purchase order with the Ordering Party is engaged to undertake Contract Works
Contractor Personnel	It means the Contractor's employees, agents, visitors, and all persons employed or engaged on or in connection with the Contract Works or any part of them and any other person on the Site in connection with the Contract Works.
Risk Control Plan (RCP)	It means an EHS plan signed by the Ordering Party and the Contractor relating to the control of EHS risks during performance of the Contract Works on Site. The content of the RCP plan is function of type, duration and size of the project. The RCP is prepared by the Contractor.
Contract Works	It means all work and services to be performed by the Contractor under the Contract
Critical Contractor	Contractor possibly involved in High-Risks Activities during the Contract Works at the Ordering Party's Site
EHS	Environment, Health and Safety.
EHS Events	A general term which includes accidents, lost time accidents (LTAs), incidents/near misses and epidemic outbreaks. • Accident: an unplanned, unwanted event. This includes accidents to the environment and any material damage, such as loss of a building due to fire or the damage of plant and product due to sling or crane failure, etc. (whether or not people were injured). • Lost Time Accident (LTA): an accident involving a person where he/she was unable to work for one working day or more, excluding the day of the accident. • Incident or Near Miss: an event or a chain of events that could have caused material damage and/or injury to people. Also sometimes referred to as a 'close call', 'near-hit' or 'dangerous occurrence'. • Cases of contagious diseases (especially tropical diseases)
EHS Requirements	It means collectively the requirements relating to EHS or the management of EHS set out in the applicable Law, the Contractor Risk Control Plan and the requirements of this document.
Electrical work	Manufacturing, constructing, installing, testing, maintaining, repairing, altering, removing, or replacing of electrical equipment involving a risk of : • Electrical shock : caused by a direct contact, tracking through or across a medium or by arcing; • Burns: caused by arcing, or indirectly by warm equipment, explosion or fire.

Term	Definition
Excavation	Any man-made cut, cavity, trench, or depression in the earth surface that is formed by earth removal and at least 1.6ft (50 cm) deep.
Fall zone	Area where the load can fall in case of a lifting accident. This area can vary according to the phase of the lifting operation, height of the load, how load is attached, shape of the load, etc.
High-Risk Activities	Operational activity involving the following types of works: • Works for which Lockout Tagout must be performed • Works involving a risk of interference with moving site or rail vehicles • Lone working • Work at height • Lifting operations • Hot works • Works in explosive atmosphere • Work exposing to electrical risks • Work in confined space • Erection, modification and dismantle of scaffolds • Excavation works • Work with exposure to radiations (ionizing or non-ionizing) • Aquatic works. • Installing, servicing and operating machines
Law	It means the laws, regulations, orders, codes, standards or bylaws of any local or national authority having the force of law in the country where the Contract Works are to be performed.
Lifting equipment	Equipment used for lifting or lowering loads. . It includes but is not limited to cranes, lifting jacks, powered forklifts, Manual elevating tables and manual forklifts are not considered as lifting equipment.
Lifting accessory	Refers to a component or device that is not permanently fitted to the lifting appliance and that is used between the lifting appliance and the load, or fixed to the load. It includes but is not limited to lifting hooks, lifting slings, mechanical connectors, etc.
Lifting Leader	Person trained and therefore having the sufficient skills, knowledge and experience to supervise lifting operations.
Lifting operation	All operations aiming to lift or to lower loads thanks to specific lifting equipment (including lift trucks and manual lifting equipment).
Lockout Tagout	Placement of a Lockout device and a Tagout device on an energy-isolating device, in accordance with an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the Lockout device is removed.
Machinery	An assembly fitted with or intended to be fitted with a drive system other than directly applied human or animal effort, consisting of linked parts or components, at least one of which moves, and which are joined together for a specific application. This includes lifting equipment and mobile work equipment.
Machine	General term used in this document to categorize any work equipment with machinery components, excluding portable tools.
Ordering Party	It means PSM or an incorporated or unincorporated consortium in which PSM participates.
Permit issuer	PSM employee with an operational management position (or a representative of PSM), who has been authorized to issue, clear and cancel permits and takes the responsibility to say it is relevant.
Permit receiver	The person (including employee of a Contractor), who is responsible for the planning, supervision and performance of any activity subject to Permit-to-Work.
Permit-to-Work (PTW)	Written document, issued by Permit issuer which allows a person or a team to perform work at a specific site and for a specific period of time, observing preventive and protective measures.

Term	Definition
Portable Power Tool	Hand tool that is actuated by an additional power source and mechanism other than the solely manual labor. The most common types of portable power tools use electric motors, but internal combustion engines and compressed air are also commonly used. Examples include: grinders, hand lamps, welding sets, drills, extension leads, plugs and sockets (because they operate in the same environment and are subject to the same use as the equipment they serve).
Portable Machining Tools	These are portable power tools as described above which are used for machining activities such as drilling, grinding, cutting, trimming, boring, etc.
Relevant authority	Organization in charge of the supervision, safe processing and thus authorization of tasks given to the Contractor. The relevant authority may depend of the nature of the task and the given situation but have to be clearly identified by the Ordering Party for the Contractor.
Routine work/activity	Work/activity which is carried out on a regular basis and is described by a work instruction/method statement and is covered by a risk control plan listing the specific risks and associated protective and preventive measures. Non-routine work/activity is any work/activity which does not correspond to the above definition.
Safeguarding (primary)	It includes two different types of safeguarding: • Guards providing physical barriers that prevent access to danger areas • Safeguarding devices, which either prevent or detect operator contact with the point of operation or stop potentially hazardous machine motion if someone is entering the hazardous part of the machine (for example, light curtain, radars and interlocks).
Safeguarding (secondary)	Includes detection safeguarding which does not prevent operators from placing or having any part of their body in the hazardous machine areas (for example, warning signals, safety distance, emergency shut-down systems).
Severe accident	Any of the following: • Fatal accidents. • Any accident resulting in permanent consequences - i.e. permanent disfigurement (having one's appearance deeply and persistently harmed medically) or disability (e.g. amputation of any digit or part of a digit) - whatever the length of the medical leave. • Any accident causing fracture requiring surgery, whatever the length of the medical leave. • Major property damage and business interruption (such as fire, explosion, flood, equipment damage, etc.). • Significant environmental impacts. • Any event or situation which could affect Contractor and/or Ordering Party's image (e.g. media impact, neighbor's claim, major accident/ incident on a project or involving a product, occupational illness, etc.).
Site	It means the place or places provided or made available to the Contractor to which plant, materials, tools and equipment are to be delivered, stored or at which Contract Works is to be performed, together with any other surrounding places as the Contractor may actually use in connection with the Contract Works, including access thereto.
Site Specific EHS Induction	It means the site induction training informing employees and contractors about the site specific EHS program and requirements.
Trench	Narrow excavation (in relation to its length) made below the surface of the ground. In general the width (measured at the bottom) is no greater than 16ft (5m).
Work at Height	Work in any place, including a place at or below ground level and roofs, where a person could fall a distance liable to cause personal injury. Access and egress to a place of work can also be work at height. It does not include stairways or slips or trips on the same level.

2 EHS MANAGEMENT

2.1 General EHS Requirements

The Contract Works shall be undertaken in compliance at all times with the EHS Requirements.

- In case any requirement contained in this document is of a lower standard than the local Law, the local Law shall apply
- In case compliance to any requirement contained in this document would result in a breach of the Law, then the corresponding requirement is not applicable

The Contractor is responsible for ensuring that Contractor Personnel, Personnel of its own contractor(s) and any visitor to site, are fully aware of and comply with the EHS Requirements at all times during performance of the Contract Work or whilst on Site, including the procedures to be followed in cases of emergency. It is the responsibility of the contractor to include PSM's EHS requirements in the legal agreement established with its own contractors

The Ordering Party reserves the right to verify that the Contractor and all Contractor Personnel meet the EHS Requirements.

If requested the Contractor shall attend EHS meeting arranged by the Ordering Party to communicate and discuss EHS issues. The Contractor's Site Manager and if applicable the Contractors EHS Manager shall attend as is required. If either is unable to attend then, a suitable member of the Contractor Personnel (as approved by the Ordering Party) shall attend on their behalf.

2.2 Risk Assessment, Permit to Work and Method Statements

The contractor shall conduct suitable risk assessments and prepare method statements for all activities to be carried out by the contractor.

The Ordering Party shall not be held responsible for delays and additional costs due to late submission of any risk assessment or method statement. All costs for conducting risk assessments and preparing method statements shall be borne by the Contractor. If any risk assessment or a method statement is not compliant to the EHS requirements, the Contractor shall rectify such deficiency immediately upon request at the Contractors cost.

Before starting work, all method statements and/or risk control measures shall be explained by the Contractor to the Contractor Personnel carrying out the respective Contract Works in comprehensive manner. All Contractor Personnel so informed shall sign a "sign-off-sheet" to confirm that they have understood the method statements and/or the risk control measures. The documentary evidence of all risk assessments and method statements must be available at all times at the Site for the purpose of reviewing and auditing by PSM.

A Permit to Work must be obtained for all non-routine High-Risk activities. The permit receiver and the permit issuer must inspect the works covered under the PTW to ensure all defined control measures are implemented prior to the issuing of any permit. Before starting work, all workers working under a PTW must receive a briefing on the control measures stated in the permit

2.3 Contractor Risk Control Plan

Within the time period requested by the Ordering Party and before the commencement of Contract Works on the Site, the Contractor shall submit to the Ordering Party, for review and approval, a Contractor Risk Control Plan. The relevant information regarding the work/project shall be considered while the contractor is preparing the activity/site specific RCP. The content of the RCP shall cover:

1. Project Name
2. Location/sector/zone
3. Name of Client

4. Name of Main Contractor
5. Scope of activities
6. Contract specification
7. Special requirements & location hazards
8. Manpower requirements
9. Tool/equipment requirements
10. Project organization structure and EHS responsibilities
11. Emergency arrangements (emergency rescue, evacuation, contact list, ...)
12. Waste disposal arrangements etc.

The RCP is presented to the Ordering Party for agreement. The Ordering Party may reject the Contractor Risk Control Plan if the Ordering Party considers such plan doesn't comply with all EHS Requirements. In such case, the Contractor shall remedy the deficiency and re-submit the plan to the Ordering Party for further review and approval. The Contractor shall not be authorized to commence any activity on Site before having obtained formal approval of the Contractor Risk Control Plan by the Ordering Party.

The Ordering Party shall not be held responsible for delays and additional costs due to late submission of the Contractor Risk Control Plan.

2.4 Security and Identification

The Contractor shall submit the full names and other necessary details of all the Personnel to be employed at Site as and when required by the Ordering Party in relation to site security. The Site induction procedure must be adhered to for the induction of all Contractor Personnel. The Ordering Party may refuse the access to the Site to any of the Contractor Personnel in case of non-compliance to the EHS Requirements (e.g. individuals are unable to attend and, where relevant, pass the Site Specific EHS Induction), and such refusal shall not form the basis of any claim from the Contractor for any delays or costs incurred.

All Contractor Personnel is required to wear an identification system with their name and the name of their company (e.g. uniform, name on hardhat).

The Contractor must advise the Ordering Party immediately of any potential threat to security or health and safety that they become aware of at Site, including intruders, suspicious packages, danger to safety of persons, goods or property or risk of explosion or pollution. The Contractor shall co-operate with the Site Security Services with respect to reporting of security incidents, closing and locking of gates, visitors, vehicles and any other matters to be reasonably requested. Firearms and weapons are prohibited on Site at all times.

Contractor Personnel shall be restricted to the area in which they are working.

The Contractor is responsible for the security of all plant, materials, tools and equipment used for its activities, whether owned or rented by or on behalf of the Contractor. Inspection of the Contractor's vehicles (or being under Contractor's responsibility) may be requested by the Ordering Party, and in case of refusal of such inspection by the driver, the vehicle shall not be authorized to enter the Site.

2.5 Manpower

The Contractor shall provide competent and suitable Personnel for the Contract Works to be carried out. The Contractor and Contractor Personnel admitted to Site must conduct themselves in an orderly and safe manner and conform at all times to the EHS Requirements. Fighting, engaging in horseplay, being under the influence of or possessing alcohol or drugs, stealing, immoral or otherwise undesirable conduct is not permitted and shall not be tolerated on site. Upon knowledge of such conduct, the Ordering Party may exclude immediately the concerned person from the Site, and will inform the Contractors manager accordingly, and the Contractor will take all appropriate measures.

The Contractor shall provide the number of qualified, suitable and experienced persons to manage all EHS matters on Site relating to the Contract Works, in accordance with the applicable Law and, as defined and agreed in Contractor Risk Control Plan. EHS Manager and other EHS Professionals shall be formally qualified and be able to justify a sufficient EHS level of experience in related industry.

The Contractor shall ensure that all Contractor Personnel performing High-Risk Activities are medically fit to carry out the task in accordance with the EHS Requirements.

All Contractor's and Contractor Personnel shall be in possession of the necessary licenses and certificates that are required for the execution of the Contract Works. The Contractor shall maintain records of all Contractor Personnel training and competency certificates. All Contractor Personnel working on Site shall attend the Site Specific EHS Induction.

2.6 Welfare and Sanitation and First Aid

The Contractor and Ordering Party must ensure that there are sufficient welfare facilities (including toilet, sanitation, lockers, and, if necessary and depending on the site's configuration, eating facility, rest rooms, etc.) available for the number of Contractor Personnel that will be on Site. The use of the Ordering Party's facilities will not be allowed without prior agreement from the Ordering Party. The Division of Work will define who is responsible for the installation and maintenance of such facilities.

The Contractor shall ensure that Common First-Aid Facility will be available for limited first aid treatment of minor injuries or sickness, posing imminent danger to a person on Site. The Contractor shall ensure that a suitable number of trained first aiders are on Site as required by applicable Law, to provide immediate first aid to Contractor Personnel. Consideration shall be made to ensure sufficient first aid coverage for works outside normal working hours.

2.7 Personal Protective Equipment (PPE)

The Contractor shall ensure at their own cost that each member of Contractor Personnel is provided with the correct Personal Protective Equipment or clothing for the Contract Works to be carried out, including but not limited to safety shoes, safety helmets, long pants, long sleeved shirt, gloves, aprons, high visibility clothing, masks, safety glasses, goggles, ear plugs, double lanyard safety harnesses, etc., as may be required by risk assessment and Ordering Party. All PPE used shall at all times be in accordance with recognized standards and the Law. The Contractor shall ensure that all PPE have been properly assessed for suitability, are maintained and stored properly and are provided with instructions on safe use. The Contractor shall monitor correct use of PPE by their Personnel.

2.8 Zero Tolerance to Deviation

PSM applies a Zero Tolerance to Deviation Policy in all high-risk activities, whose principles are:

- Deviation to any EHS requirement cannot be tolerated;
- In case of a deviation that could result in a severe accident, the concerned activity must be stopped immediately, an investigation must be conducted and corrective/preventive measures must be implemented;
- Individual disciplinary measures may be applied where it is found through investigation that an EHS requirement has been breached, based on the "three-strike rule" (verbal warning, written warning and exclusion from Site). Deliberate breaches of requirements in relation to High-Risk Activities may require stronger and quicker disciplinary measures.

The Contractor is responsible for applying those principles to the Contract Works and must ensure that their Personnel understand them.

The Ordering Party remains entitled to request the Contractor to remove from Site any person and/or plant, materials,

tools or equipment that is not conforming to the EHS Requirements.

2.9 Audit and Inspection

The Ordering Party reserves the right to carry out or have carried out by a third party any audits and/or inspections it considers necessary during the contract duration. These audits may take place at the Site or, where relevant, on the premises of the Ordering Party or the Contractor.

The Contractors shall also undertake regular audits and inspections of its own activities on site at a frequency defined in the Contractor Risk Control Plan.

Any deficiencies found in the Contractor's management of EHS matters and any deviation to the EHS Requirements shall be immediately rectified by the Contractor at the Contractor's cost.

An ordering party appointed supervisor might supervise all high risk activities performed by the contractor. The appointed supervisor will perform daily documented inspections of the work site and enforce the Zero Tolerance Policy when required.

2.10 EHS Reporting

The Contractor shall immediately notify the Ordering Party of any environmental incident, injury, illness, near-miss, unsafe condition or practice and any loss or damage to the Ordering Party property, environment including incidents related to the Contractor Personnel.

Containment actions shall be taken immediately. Preliminary investigation report assessing the potential root causes shall be submitted to the Ordering Party within 1 day. Final Root Cause analysis, corrective action and preventative actions shall be submitted to the Ordering Party by the Contractor within 5 days except if defined differently by the ordering party. This report shall be done using the Ordering Party forms unless otherwise agreed by the Ordering Party in writing.

2.11 Emergency Response Procedures

The Contractor shall ensure that all Contractor Personnel are made aware of the Site Specific Emergency Response Procedures and Evacuation Muster Points.

The Contractor shall contribute to the organization of the overall emergency arrangements, to ensure suitable evacuation and roll call of Contractor Personnel in case of evacuation.

In any case, the Contractor remains fully responsible for the management of their Personnel (and their own Contractor Personnel) and particularly during site emergencies and/or site evacuations. Particularly the Contractor must have a system in place to account for their Personnel during a site emergency/site evacuation. The Ordering Party remains responsible for the availability of relevant emergency infrastructure and facilities (emergency exits, escape lighting, fire extinguisher, Automatic External Defibrillator... etc.).

3 OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

3.1 Housekeeping

The Contractor shall ensure that their work area is kept clean, tidy and free from debris generated by their activities. The work areas must be cleaned on a daily basis and a full cleaning session of each area shall be conducted on a weekly basis. The disposal of all waste shall be performed as agreed, between the Contractor and the Ordering Party. All equipment, materials and vehicles shall be stored in an orderly manner. Access to emergency equipment, exits, telephones, safety showers, eye wash stations, fire extinguishers, pull boxes, fire hoses, etc. shall not be blocked or otherwise disturbed, restricted or delayed.

Each Contractor shall perform Contract Work in a manner that will minimize and control the production and migration of noise, dust and debris to adjacent work areas.

3.2 Confined Spaces

All Confined Spaces belonging to Contractor shall be identified and clearly signed posted as a confined space forbidden to unauthorized Personnel at every entrance. A method for preventing entry must be established and maintained for all Confined Spaces. Physical prevention system (such as locks) is preferred.

Before commencing contracted work in a Confined Space, the Contractor must obtain a confined space entry permit from the relevant authority.

The following requirements shall be met at any time:

- Only competent and trained workers can participate to work in confined spaces (as a minimum as per local Law). A Confined Space Entry Log (or equivalent) must be used to identify the person inside the Confined Space at any time;
- Air Analysis tests must be carried out to determine if the Confined Space is oxygen deficient and/or contains flammable substances, toxic agents, carbon monoxide and/or harmful physical agents. The air shall be analysed before starting work, during work and after work. Adequate ventilation must be provided;
- Working in the confined space without a watcher is strictly forbidden. An adequate means of communication is required and shall enable easy and clear communication:
 - Between those inside the space,
 - Between those inside the space and those outside,
 - To summon help in case of emergency;
- Adequate emergency provisions must be in place. In particular, necessary rescue equipment must be ready, pre-inspected and available. The arrangements need to be suitable and sufficient for the rescue of persons in the event of an emergency.

3.3 Material, Machinery/Machine, Equipment and Tools

The Ordering Party shall be entitled to request the Contractor to remove from Site any materials, machinery/machine, tools or equipment that the Ordering Party considers to be unsafe or not conforming to the EHS Requirements. Any such materials, tools or equipment shall not be permitted to return or be brought back to Site (as the case may be) without the prior written approval of the Ordering Party.

The Ordering Party shall not be held responsible for any delays and additional costs due to such situations.

The Contractor must ensure that all Machinery, Equipment and Tools provided for use in connection with the Contract Works are:

- Compliant with EHS requirements, suitable and safe for use, maintained in a safe condition and where necessary inspected to ensure this remains the case
- Used only by people who have received adequate information, instruction and training and, if required, permits. The check of competences shall be done formally and prior to placement by the Contractor for any work on Machine
- Prevented from access to dangerous parts of the Machine by ensuring safeguarding means are in place. Removing or bridging primary or secondary safeguarding is strictly forbidden at any time during normal intervention.
- Provided with earth fault circuit breakers (EFCBs) at all times when using electric power leads. Use of electrical

tape for temporary repairs is prohibited

Where relevant, Residual Current Devices (RCDs) shall be in place at the power supply (for 240 volts and above) of the Multiple Distribution Boards.

When changing Tools, adjusting, setting up or cleaning a Machine, the operator must switch off the automatic mode, lock the system with key off, or use devices such as a remote control box with a non-latching ON switch.

Powered hand tools shall be:

- Grounded (earthed) or double insulated. Electrical cord has to be in good condition and whenever necessary, waterproof connectors shall be used for cable connections.
- Provided with a non-latching ON switch. This switch is not to be bypassed. When reenergized, no machine or portable tools and equipment will be allowed to start by itself.
- Formally inspected, uniquely identified and held on a register. The identification will give details of the last inspection and/or date of next inspection.

When changing Tools, adjusting, setting up or cleaning a Power portable tool, the operator must unplug the tool.

It must be ensured that the Preventive maintenance program of the Machine includes periodical checks of Machine and Equipment conditions.

Portable circular saws, grinders and magnetic drilling machines must be provided with safeguarding round movable parts.

3.4 Vehicles Movement

The Contractor shall ensure all vehicles used by the Contractor and/or their own contractors for carrying out the works, comply in every respect with all applicable Laws, and EHS Requirements to traffic, vehicle loading and unloading, parking. Any vehicle that is not in possession of current valid documentation and certificates shall be immediately removed from Site.

All persons driving on Site shall obey all traffic regulations and signs. They must be subject to formal competence check by the Contractor to ensure the necessary training, experience and qualification prior to placement, and carry a valid driver's license for any vehicles they operate.

Pedestrians shall respect Site Rules at any time. High visibility clothing/garments are mandatory as a minimum by vehicle drivers and in construction, forklift and truck maneuvering areas.

Where there is no physical segregation of work traffic (logistic areas, construction sites...), all people not directly involved in the work of the operating vehicle shall maintain a safety distance of at least 2 meters from the vehicle.

When a powered vehicle is not in use, it must be ensured that:

- The engine is stopped and prevented from unauthorized use (e.g.: starter key removed), brake applied, brake applied (and with wheels chocked for heavy vehicles);
- All raised parts are lowered to the ground (like forks) or put in a safe position (cranes);
- No parked vehicle is obstructing emergency exits, other routes, fire equipment or electricity panels.

3.5 Working at Height

The Contractor must ensure that all persons working at height, supervising Work at Height activities or are involved in designing fall prevention or fall protection measures are fully trained, qualified and competent prior to commencing work.

Whenever reasonably practical, collective fall prevention measures must be in place (e.g. safe work platform, barriers,

railings...). A Permit to Work must be issued by the relevant authority for all Work at Height where collective prevention measures are not fully possible and work in Mobile Elevated Work Platform, or Mobile crane. When it is not possible to implement collective fall prevention/protection measures, all persons exposed to a risk of falling from height must use a full-body harness that is at all times attached to a secure designated anchor point or life line.

The Contractor must have a rescue plan that includes rescue of people working at height and is detailed in the Contractor Risk Control Plan.

Where safe to do so all items used for work at height including tools and equipment must be secured, where this is not possible alternative measures such as barriers must be in place to prevent people from being in an area where there is a risk of falling objects or equipment.

The Contractor must ensure that a competent operational supervisor is formally appointed to supervise each work activity where there is a risk of falling from height.

All temporary floor openings must be physically secured to prevent falls.

3.5.1 Work at height material

All ladders, harnesses, mobile elevated work platforms, scaffolds, harnesses, lanyards, lifelines, and other relevant equipment used for Work at Height or for fall prevention or protection must be uniquely identified, listed in a register and subject to formal regular inspection by the Contractor. All defective or non-inspected equipment that is or could be used for work at height or for fall prevention or protection must be either removed from site or physically prevented from use by the Contractor.

All equipment (including ladders, harnesses, lanyards, lifelines, scaffolds, elevated work platforms etc.) must be subject to a pre-use inspection by the Contractor.

All barriers preventing falls from height must comply with the applicable regulatory requirement.

Before using any anchor points, lifelines, fall arrestors and lanyards, the Contractor must ensure that they are designed and used in a way to ensure maximum protection to the user and they comply with international standards.

Lifelines must be restricted to a maximum load and must be individually validated by a competent person formally authorized by the Contractor.

Only qualified scaffolders are allowed to design, erect, alter, inspect and dismantle scaffolding. All scaffolds shall be subject to a documented inspection by a competent person (employed by the Contractor) and clearly identified/marked prior to use and thereafter every seven (7) calendar days (minimum), immediately after any modification or immediately after any adverse weather conditions. Green/red scaff tag system shall be used to identify safe / unsafe scaffold for access.

All costs associated with this system shall be borne by the Contractor. The Contractor shall submit for the Ordering Party approval a proposal regarding the type of scaffold to be used on site. The Ordering Party reserves the right to reject the introduction on Site of scaffold material not compliant to EHS requirements. The Contractor shall not erect any scaffold before the Ordering Party authorization.

Scaffolds must be constructed with metal frames, using floorboards and toe-boards fixed at all times, with no significant gap that could allow people to trip or fall. Guardrails and toe-boards shall be installed on all open sides and ends of scaffold platforms. Scaffolds shall be provided with an access ladder or equivalent safe access. Climbing on handrails, mid-rails, and brace members is prohibited.

When freestanding, manually propelled scaffolds are used, the highest work platform shall not exceed three (3) times the minimum base dimension. Contractor Personnel shall not be present on mobile scaffolds when they are being moved.

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3.5.2 Stairways and Ladders

Fixed and portable ladders must only be used as an access to, or egress from a workplace, and when the use of alternative equipment is not practicable.

When used, ladders must comply with the following requirements:

- Self-fabricated ladders are prohibited
- Conductive or metal ladders shall be prominently marked as conductive and not be used near energized lines or equipment
- Ladders will be secured top and bottom to keep them from shifting, slipping, being knocked or blown over.
- Ladders will never be tied to facility services piping, conduits, or ventilation ducting
- Temporary ladders will be lowered and securely stored at the end of each workday
- Ladders shall be maintained free of oil, grease and other slipping hazards
- Ladders will be visually inspected by a competent person and approved for use before being put into service. Each user shall inspect ladders visually before using
- Ladders with structural defects shall be tagged "Do Not Use," immediately taken out of service, and removed from the Site by the end of the day.
- The use of ladder includes that 3 points of contact must be maintained at all times between the user and the ladder.
- Ladders must be pitched at a 70 to 75° angle and extended at least 3ft (or 1m) above the top landing.

3.5.3 Roof Work/Access

Roof Work and Access to roofs must not be undertaken without prior authorization from the Ordering Party. All roof openings (including temporary ones) must be physically secured to prevent falls.

3.5.4 Mobile Elevated Work Platforms (MEWP)

Mobile Elevated Work Platforms (boom, scissors, snorkel types, etc.) shall be used in accordance with the EHS Requirements. All Contractor Personnel operating MEWP's shall be properly trained. Climbing on handrails, mid-rails, and brace members is prohibited. Inspection certificate of the MEWP shall be submitted to the Ordering Party prior to any use at Site. Personnel shall be attached all time to a certified suitable anchor point.

3.5.5 Overhead Work

A secure exclusion zone shall be maintained by the Contractor below overhead work to prevent access and protect Personnel from falling objects. Such exclusion zone shall be maintained until the end of the task. Suitable signage shall be in place to inform about the reason of the exclusion zone.

3.6 Lifting Operations

The Contractor shall prepare a lifting plan, checked and submit for authorization by Contractor's competent authorized persons prior to any lifting operation and formally communicated to all persons undertaking the work.

All persons preparing, issuing lifting plans and all persons involved in lifting operations must be subject to formal training, be qualified and competent. The Contractor must ensure that their nominated Lifting Leader has appropriate qualifications.

Contractor lifting plans include:

- Ordering Party general or site specific EHS documentation related to lifting operations
- The lifting methodology, step by step
- The risk analysis of the operation including consideration for weather conditions and work environments (e.g.: proximity of hazards and obstructions to the load, consideration for overturning, load integrity) where appropriate and consideration for simultaneous operations and the measures taken to avoid conflicting tasks in the lifting area
- The identification of the designated lifting area, the fall zone and the control measures to prevent access such as barriers, signs, etc.
- The description of the type, weight, size, shape and center of gravity of the load and the method used for slinging, attaching and detaching the load with the availability of approved lifting points on load when necessary
- The list of the certified and inspected equipment and lifting accessories to be used
- The composition of the team required to perform the task (crane driver, rigger, signaller etc.) with the needed qualifications and description of their roles and responsibilities including the intended communication method

The Contractor must ensure that a competent operational leader is formally appointed to supervise each lifting operation. All lifting plans must clearly define the specific roles and responsibilities for each person involved (e.g.: crane drivers, lifting coordinators and riggers) and must be checked and issued prior to lifting operation. Clear communication channels must be formally established and maintained between everyone involved in a lift with only authorized person giving instruction to the operator.

No employee of the Contractor shall be positioned under a suspended load or between a suspended load and fixed objects.

All lifting equipment and accessories must have valid manufacturers certificates or thorough examination records and be uniquely identified, marked with the safe working load, listed in a register and subject to formal regular inspection and shall have valid certificates from a competent authority. Inspection before use by the operator is mandatory.

The Contractor shall operate and maintain cranes and hoisting equipment in accordance with manufacturers' specifications and limitations and the EHS Requirements. All defective, non-inspected or unidentified (safe working load / identification number) lifting equipment or accessories must be either removed from site or physically prevented from use.

Contractor Personnel are not permitted to use the Ordering Party lifting equipment unless prior approval has been received from the Ordering Party.

3.7 Lockout Tagout ("LOTO")

Prior to performing work on Machines or Equipment, the Contractor shall ensure that all energy sources are isolated and verify the absence of residual energy (e.g.: by using specific voltage detecting device for electricity).

At any time, the Contractor shall follow the Site-specific LOTO and Permit to Work rules.

The Contractor must ensure that all of their affected Contractor Personnel receive the necessary training.

Lockout/Tagout must be implemented before servicing and maintenance is performed on Machines and Equipment, which could unexpectedly start-up, become energized, or release stored energy exposing persons to a risk of injury, unless the works undertaken are performed using alternative measures that provide effective protection.

Absence of residual energy must be verified using the suitable equipment or process adapted to the machine and the kind of energy to be checked before start of work.

When the Contractor is in charge of LOTO, each authorized person must be issued with an individual lock with a unique key. It is the responsibility of the Contractor to deliver each person under its management with such lock and key and other devices (such as lock box) in order to comply with the PSM standard "One person, one Key". The Contractor shall secure areas where energy sources have been de-energized, so as to prevent the access of unauthorized personnel and erect suitable signs. All affected Personnel shall be notified.

Once an item of electrical equipment has been energized, an item of mechanical plant and/or System has been erected and released for Commissioning, no work will be allowed on such item of Equipment or System unless a valid Permit to Work (PTW) has been obtained from the relevant authority.

3.8 Hazardous Substances

All chemicals brought onto the Site by the Contractor must be properly labelled and segregated to prevent potential hazardous mixing and ensure that all the Contractor Personnel are made aware of the hazards associated with the chemicals being used. All hazardous substances must be used, stored and disposed by the Contractor in compliance with the requirements stated on the Material Safety Data Sheet.

The list of chemicals brought onto the Site by the Contractor (including fuels, oils, lubricants, chemicals, paints, coatings, coolants, cleaners, flooring materials, etc.) must have been communicated by the Contractor to the Ordering Party. The introduction of certain Chemicals on Site may be subject to rejection by the Ordering Party. Relevant and up-to-date Safety Data Sheets (SDS) must be available to the Ordering Party at the Site.

Transfer and decanting of flammable liquids will be grounded and bonded where necessary.

Temperature sensitivity needs to be taken into consideration during storage period.

Expired chemicals will be disposed of in accordance with MSDS requirements and applicable legal requirements.

Upon completion of the Contract, all unused materials will be taken off the Site by the Contractor.

All chemicals and substances must be registered in accordance with the applicable Law.

3.9 Asbestos-Containing Materials

The Contractor shall not bring any Asbestos or material containing Asbestos onto the Site. Upon discovery of unanticipated or suspected asbestos containing materials the Contractor shall immediately report to the Ordering Party and shall halt all work in the area until formal notification from the Ordering Party is received.

3.10 Compressed Gas Cylinders

Gas cylinders shall be securely stored and transported, and identified and used in line with the EHS Requirements. Hose lines shall be adequately protected, inspected and tested for leaks in line with the EHS Requirements.

3.11 Electrical Safety

Personal authorization must be issued by Contractor Management (or formally designed delegates) likely to perform or supervise electrical works. Prior to starting work, on the request of the Ordering Party, the contractor must be able to present all the evidences used for issuing such authorization. The Ordering Party shall not be held responsible for delays and additional costs due to late submission of the requested evidences. Without such an authorization, no Contractor's employee shall undertake electrical works.

No live work on high voltage or medium voltage is allowed. All high voltage and medium voltage electrical works must be performed on isolated equipment and only after verification of absence of voltage with suitable equipment. Low voltage and very low voltage live work is only allowed for measurement tests and checks of equipment. The below measures will be taken:

- Work practices must protect against direct or indirect body contact by means of tools or materials and be suitable for work conditions and the exposed voltage level
- A Lockout and Tagout procedure must be applied prior to commencing any electrical work. Prior to commencing works on isolated equipment, a verification of absence of voltage with suitable safety test equipment must be performed.
- Energized panels will remain locked with a specific key or tool whenever they are unattended and tagged with the signs and warnings indicating the presence of danger. If not reasonably practicable, a restricted area delimited with physical barriers and supported by warning signs must be implemented around the opened equipment.
- Only qualified electrical Contractor Personnel may enter substations and/or transformer vaults and only after being specifically authorized by the Ordering Party.

3.12 Fire Protection and Prevention

Routine hot works should be described in the Contractor Risk Control Plan.

Full and unrestricted access to emergency exits, fire-fighting equipment, fire control and emergency vehicles shall be maintained at all times. The Contractor shall provide, install and maintain their own temporary fire protection against hazards they introduce to the Site (work areas, storage areas, and temporary facilities under their responsibilities).

Contractor fire extinguishers shall be inspected at least annually by a certified person and visually inspected monthly and documented by the Contractor.

The Contractor shall not install or alter fire prevention/protection systems without the Ordering Party authorization. The Contractor and Contractor Personnel may only work on fire systems where appropriately licensed/qualified.

3.13 Trenching and Excavation

The Contractor shall assign a competent Contractor Personnel for all trenching and excavation work.

A Permit to Work must be established before commencing any excavation work, where and of the following risks have been identified:

- Depth of the excavation greater than 4ft (1.2m)
- Possibility of water ingress
- Presence of foundations close to the excavation or adjacent structures
- Loose rock or soil (including soil previously excavated)
- Presence of utilities in the ground (gas, electricity, water)
- Possibility of contaminated soil (hazardous substances or unexploded devices)
- Presence of simultaneous operations, and the possibility of cave-ins (considering the following potential events: sliding, toppling, bulging, heaving, boiling of the ground, and flooding).
- Presence of vehicles movements at less than 3 meter from the edge of the excavation

Excavations of more than 4ft (1.2m) in depth, requiring any specific access means, must have rigid barriers and toe-boards (or any system which provides equivalent protection as toe-boards) around the outside to prevent persons and material from falling. Toe-boards are not required when a safety distance of 5ft (1.5m) is maintained between edge of excavation and rigid barrier

Excavations between 1.6ft – 4ft (0.5-1.2m) in depth must have rigid barriers around the outside to prevent

persons and material from falling, except when a safety distance of 5ft (1.5m) is maintained at all times by visible safety chains or flexible mesh at 3.6ft (1.1m) height. This is described in the below table:

		Safety Distance	
		None or < 5ft	5ft or more
Depth	between 1.6 and 4ft deep	Rigid barriers	Flexible mesh or visible safety chains
	over 4ft deep	Rigid barriers and toe-board	Rigid barriers

A protective system to prevent collapse of the excavation or caves-in (i.e. sloping, sloping and benching, shielding, support systems) must be installed when the excavation is more than 4ft (1.2m) deep.

Safe means of access and egress shall be located in all trench excavations at least every 50ft (15m).

Prior any work in or near the excavation, the competent Contractor's Personnel must check every day if all preventative and protective measures are maintained in place for preventing falls and cave-ins.

4 ENVIRONMENTAL REQUIREMENTS

4.1 Waste Management

The collection, transport, storage and removal of waste from the Site and the disposal as per applicable Law in approved disposal locations is the full responsibility of the Contractor for any waste generated by the Contract works. The Contractor shall take all necessary precautions to ensure the complete protection of ground and underground against pollution. The burning of surplus waste shall not be permitted.

In the event that the Contractor fails to comply with the waste management requirements, the Ordering Party reserves the right to carry out the necessary work, and to recover the costs from the Contractor.

4.2 Spills prevention and control

The Contractor shall take all steps and precautions that are necessary to ensure that no liquid waste, contaminated surface water or other untreated effluent gains access to the surface water drainage system.

All liquid waste resulting from the Contractor's activities on Site shall be collected separately with approved interceptors or similar, and disposed of, all by the Contractor, in accordance with the applicable Laws. It is the Contractor's responsibility to identify all such laws and regulations regarding waste disposal and act in full compliance with such Laws and regulations. The Contractor shall hold the Ordering Party harmless from any such occurrences, whether they are accidental or otherwise.

The Contractor is responsible for the provision of adequate spill kits/protection and the clean-up and disposal costs of spills arising from the Contract Works.

4.3 Emissions

The Contractor shall identify and quantify any emission sources associated with the Contract Works. The Contractor shall implement controls to eliminate or minimize emissions which include but are not limited to Volatile Organic Compounds, noise, dust, fumes and vapors.

Where practicable, screening shall be provided to prevent the ingress of dust and dirt to any part of the Contract Works. The Contractor shall ensure adequate dust suppression methods are employed (e.g. wetting down by water truck) in their work areas at all times.

The Contractor is to prevent the deposit of mud on public roads by their vehicles and shall act in accordance with the applicable Laws and the EHS Requirements. The Contractor is responsible for maintaining all public roads free from mud generated at Site from whatever cause to the satisfaction of the Ordering Party.

The Contractor shall provide to the Ordering Party upon request, and whenever specified by the EHS Requirements, any information, plan, measurement, analysis and control measures required to fulfil the EHS Requirements.

5 CONTRACTOR EHS INSPECTION AND REVIEW

The Contractor may be required to participate in a Contractor EHS performance review covering the scope of the Contract Works. This activity involved undertaking a site inspection to check on EHS compliance and also a review of the contractors EHS performance over the period since the previous report.

The frequency shall be stipulated by the ordering party. The attachment to the present document or equivalent shall be used for this purpose.

The results if this and any other inspection may be used in application of contractual remedies as outlined below.

6 REMEDIES FOR NON-COMPLIANCE WITH EHS REQUIREMENTS

The Ordering Party will inform the Contractor whenever it considers the Contractor to be in breach of any of the EHS Requirements. If the Contractor does not take appropriate corrective actions to rectify the breach within reasonable time or within the time period stipulated in the Ordering Party's written notice, the Ordering Party is entitled to rectify such breach itself or by a third party and to recover the associated costs from the Contractor. Whenever the breach of the EHS Requirements requires an interruption of the Contract Works (as stated in "Zero Tolerance to Deviation" paragraph of the present document), the Contractor shall stop the work and shall remain liable for the cost and delay implication of such interruption, in addition to the additional rectify costs required to rectify the situation.

In case of the occurrence of an accident due to breach of the EHS Requirements by the Contractor during Contract Works, the Contractor shall be liable for all losses, damages, fines and costs of responding to and participating in the investigations of any relevant authorities and defending any actions as a result of such breach and indemnify and hold harmless the Ordering Party in respect of the same.

If the respective breach constitutes a material breach, the Ordering Party shall be entitled to terminate the Contract under the conditions of the Contract. Such termination right shall be cumulative to any other remedy available for such breach. A material breach of the EHS Requirements shall include but not be limited to a breach:

- (i) that may result in legal action against the Ordering Party or the Contractor;
- (ii) that may result in fines or alike being levied on the Ordering Party or the Contractor;
- (iii) whereby the Ordering Party or Contractor may lose its license, permit, certificate or alike necessary to execute their works or the Contract Works (as the case may be);
- (iv) that may lead to termination of the main contract entered into by the Ordering Party and its customer;
- (v) where the Contractor persistently breaches EHS Requirements.

A – Contractor EHS Compliance Inspection

Site:		Date:		Contractor:	
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Item	Topics	Yes	No	Details of the non-conformance	Comments
A1	Valid risk assessments are in place for all contractor activities that were checked				
A2	All contractor personnel checked had a valid identification system (e.g. badges) and have received induction training				
A3	All lifting accessories checked were found on site with a unique identification number, the safe work load				
A4	All contractor personnel checked performing electrical work are trained and authorized to do so				
A5	All confined spaces activities checked had a confined space permit place				
A6	All contractor personnel observed working at height requiring the use of fall protection are suitably clipped on				
A7	All contractor personnel found working or walking on a scaffold had the scaffold tag green and the inspection in date				
A8	No contractor personnel were observed working or walking under a suspended load				
A9	All contractor excavations checked are protected with suitable barriers.				
A10	All contractor wastes checked are contained in a suitable waste skip.				

	Inspector:	Position:	Company:	Date	Signature
the ordering party Site Manager					
Contractor					

Contractor EHS Inspection & Review