OCEAN WINDS

Ocean Winds (OW)

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HSEQ REQUIREMENTS FOR CONTRACTORS

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1. Introduction

1.1 Overview

This document contains the OW Polska Ltd. (hereinafter Employer) expectations and requirements in relation to Quality, Health and Safety, Security, and Environmental matters. Depending on each contract specific scope and perimeters, the HSE requirements defined in the present document can be completed by other documents.

1.2 Scope of Application

The document applies to all employees and Contractors engaged by OW Polska Ltd. as relevant to the works. The HSE requirements defined in present documents could be completed by other documents and procedures which will apply to the Contractor's scope of work.

1.3 Project Language

All project communications shall be in English, including verbal communications with all line management and site operatives at the workplace and anywhere on the project sites. This does not prejudice the use of interpreters as stated below.

The Contractor shall ensure it recognises this when planning works, particularly in relation to documentation, signage, project inductions and all other training.

Should the Contractor propose to utilise or control personnel whose first language is not English it shall document this in the Project Execution Plan/Project HSE Plan (or equivalent document) and detail specific management and operational arrangements to ensure adequate, and sufficient, communication.

Where a Contractor proposes to use interpreters, the interpreter shall be demonstrated to be competent in written and spoken English.

Workers with language barriers must be supervised by a competent supervisor who is able to communicate effectively with them.

In cases where the first language is commonly shared, for example where vessel crews are of the same nationality, use of that language will be accepted for communications internally, with particular reference to safety critical work. Operating manuals and vessel management specific documentation shall also be in the first language of the vessel crew.

2. Definitions and Abbreviations

2.1 Definitions

As per contract.

2.2 Abbreviations

AC	Alternating Current
AUV	Automated Underwater Vehicle
CAA	Civil Aviation Authority
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CMID	Common Marine Inspection Document (hard copy)
COSHH	Control of Substances Hazardous to Health
DC	Direct Current
DCI	Decompression Illness
DoC	Declaration of Conformity
EMP	Environmental Management Plan
EN	European Norm
ERCoP	Emergency Response Cooperation Plan
ERP	Emergency Response Plan
FLO	Fisheries Liaison Officer
HSE	Health and Safety Executive
HV	High Voltage normally exceeding 1000Vac and 1500Vdc
IEC	International Electrotechnical Commission
IMO	International Maritime Organisation
INNS	Invasive Non-Native Species
ISM	International Safety Management
ISO	International Organisation for Standardisation
ITAP	Inspection Test and Audit Plan
IMCA	International Marine Contractors Association
LV	Low Voltage normally not exceeding 1000Vac and 1500Vdc
MARPOL	Maritime Pollution
MMO	Marine Mammal Observer
MS	Management System
MSRA	Method Statement Risk Assessment
NCR	Non-Conformity Report
NDT	Non-Destructive Testing
O&M	Operations and Maintenance
PAM	Passive Acoustic Monitoring
PPE	Personal Protective Equipment
HSEQ	Health, Safety, Environment and Quality
ROV	Remotely Operated Vehicles
SECEs	Safety and Environmental Critical Elements
SIMOPS	Simultaneous Operations
SMS	Safety Management System
SOLAS	Safety of Life at Sea Convention
SOPEP	Shipboard Oil Pollution Prevention Plan
UXO	Unexploded Ordnance
WTG	Wind Turbine Generator
WTN	Waste Transfer Note

3. Legal compliance requirements and industry codes of practice

Contractor shall ensure that all activities associated with Contractor's Scope of Work are conducted in compliance with applicable international, national and local HSEQ laws and regulations, Employer standards, requirements and guidelines, regulations and accepted international industry standards for all relevant equipment during the entirety of the contract.

Contractor shall have in place polices, and procedures to demonstrate that it has considered legislation and industry codes of practice, in accordance with the technical specifications of the Contract, which are applicable to the Work. Contractor shall also have in place policies and procedures for the resolution of non-compliance with the latter. Any non-compliance shall be reported to Contract Manager (or representative) verbally, with immediate effect, and within twenty-four (24) hours of occurrence in writing. Preventive and corrective actions in shall be recorded in writing and copies supplied to the Employer.

3.1 National regulation and laws

Contractor shall be responsible to comply with all national laws, codes and national standards that apply to the work.

3.2 International HSEQ Codes and Standards

All the national laws and regulation and international codes and standards included in the technical documentation shall be reviewed and updated as necessary by the Contractor, to ensure compliance with the latest Polish Laws and the latest international codes and standards.

Contractor shall ensure that local regulatory requirements are met or exceeded and where these are absent or inadequate, standards shall be set that protect people and the environment. Contractor shall submit to the Employer and indicate the relevant document complying with the requirements of Polish Law, project philosophies and recognized industry standards.

Contractor shall incorporate safety and integrity critical lessons learnt from previous projects and any other requirements from Employer.

The Contractor may propose to the Employer alternative specifications, codes and standards for consideration. Approval of such alternative proposals for use shall be at the discretion of the Employer.

References	Document Titles
ISO 45001	Occupational Health and Safety
ISO 14001	Environmental Management System

3.3 Compliance with Laws and Regulations

Contractor shall comply with all obligations established by Applicable Laws and Regulations related to Health and Safety, Environment and Quality, relevant to the works, in particular with:

- International Safety Management Code (ISM Code) as adopted by the IMO Organisation by resolution A.741(18), and amendments to date;
- International Convention for the Safety of Life at Sea (SOLAS), published by International Maritime Organization Regulations, in 1974 and consolidated in 2015;
- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW);
- International Regulations for Preventing Collisions at Sea (COLREG);
- International Convention for the Prevention of Pollution from Ships (MARPOL);
- International Ship and Port Facility Security Code (ISPS);
- Mobil Offshore Drilling Unit Code (MODU);
- International Convention for the Control and Management of ships Ballast Water and Sediments (BWM);
- Maritime Labour Convention 2006;
- International Convention on Maritime Search and Rescue;
- International Labour Office.

4. Leadership

4.1 Policies

Contractor and its Subcontractors will acknowledge Employer's strong commitment to HSEQ and affirm that they have written Health and Safety, Environment and Quality Policies as appropriate to their scope of work. The acknowledgment shall be attached to the Bridging Document.

This Contractor's Policies shall be signed and actively supported and endorsed by Contractors' Management.

Contractor shall ensure that its Policies are widely disseminated and understood among Contractor's and Subcontractor's employees.

4.2 Leadership Responsibilities

The Contractor shall document the responsibilities of its senior personnel (managers and directors), in relation to execution of the works. The responsibilities shall be defined in dedicated section in Project HSEQ Plan as per requirements specified in section 9 Project HSE Plan.

The Contractor's management team is expected to demonstrate its leadership through regular site inspections and/or audits, participation in site safety tours, and attendance whenever possible at site health safety and environment meetings.

4.3 HSEQ line responsibilities

As per Employer HSEQ requirements, the HSEQ matters have to be supported and promoted by top management of the organization. Consequently, it is requested that Contractor's top management endorses and approves the HSEQ requirements linked with the subject of the contract.

During the execution, if necessary, the top management of Contractor has to delegate this responsibility to the highest level of the operational staff by giving all means and authority to enforce the HSEQ requirements.

An organization chart illustrating the allocation of HSE responsibilities shall be attached to the Project HSEQ Plan.

4.4 Project HSE Manager

Contractor shall provide at least one Project HSE Manager as described in this section as soon as the Contract is signed off.

Contractor Project HSE Manager shall be knowledgeable in offshore environment safety techniques and have a working knowledge of the legal and contractual health, safety and environmental requirements that must be met. Project HSE Manager must have the ability to communicate effectively at all levels of the Contractor's organization.

Contractor Project HSE Manager shall demonstrate competence in the following areas:

(i) Ability to communicate effectively in written and spoken English and ideally in Polish;
(ii) Ability to define & manage a HSE team in line with the Scope of Work;

(iii) Ability to define, implement and manage the Project HSE Management System;
(iv) Ability to conduct HSE inspection & audits;
(v) Training ability in incident prevention;
(vi) Ability to conduct incident investigations and identify underlying causes;
(vii) Knowledge of health requirements, rules and regulations and ability to monitor compliance;
(viii) Knowledge of environmental requirements, rules and regulations, and ability to monitor compliance and identify ways of reducing environmental impact
(ix) Be fully conversant with techniques used in the management of hazards and advising on suitable measures that can be used for preventing and ultimately recovering from accident situations
(x) Be fully conversant with the Employer HSE documents and emergency procedures.

Contractor Project HSE Manager will be the chosen point of contact for the Employer with respect to:

- The issuance project documentation (e.g. Project HSE Plan, ERP, etc.),
- HSE staffing on the Project,
- Awareness, training, information and control of all teams and subcontractors working for Contractor,
- Involvement in HSE meetings and issuance of reports,
- Sending the Employer daily, weekly, or monthly reports relevant to events concerning health, safety and environment and a final summary with Key Performance Indicators (lagging and leading indicators),
- Closing out of actions mutually agreed, identified during the hazard identification workshops performed for the Project,
- Incident investigations and subsequent Action Tracking Register for the close-out of actions,
- Closing out of actions identified during root cause analysis performed after any incident, accident or near-miss,
- Sending HSE non-compliance records to Employer,
- Monitoring the number and the treatment of non-compliances and non-conformities raised throughout the Project,
- Waste management (from the procurement phase until their elimination with manifest),
- Presence upon Employer's request to site visits of local authorities or audits,
- Sending the Employer the records of checks relating to HSE following contractor audits or inspection,
- The PPE standards compliance for the Contractor and Subcontractors staff.

4.5 HSEQ professionals

The Contractor organisation shall ensure it has access to competent health and safety advice to ensure it meets the duties under applicable Polish health and safety law. The Contractor shall confirm that it is fully conversant with the requirements of health and safety and environmental legislation and understands its overall duties under Polish applicable health, safety and environmental law at least 8 weeks prior to commencement of Works.

The Contractors shall also appoint the adequate number of HSE professionals to provide such advice and expert guidance as may be necessary during the entirety of the contract.

The Contractor's Project HSEQ Plan shall name its appointed competent safety advisor(s), who will provide health and safety advice, both general and construction related to the Contractor's project team.

The minimum qualifications for the competent safety resource shall be as follows:

- Proven significant experience in relevant field of health and safety.
- NEBOSH International Construction Certificate/International General Certificate/International Technical Certificate in Oil & Gas; or
- NEBOSH Diploma or MSc / PGD in Occupational Health and Safety.

Other international equivalents will be accepted where evidence of compatibility can be provided by the Contractor.

Employer reserves the right to require replacement of the Contractor's nominated safety advisor(s) where the level of qualification demonstrably does not meet the requirements specified above.

4.6 HSEQ professionals on multi-sites Project activities

Contractor shall be able to describe in a simple manner what will be the HSEQ staffing and organisation of the Project while activities are carried out on multi-sites on land and/or at sea. In particular, a focus shall be made to identify whether resources involved are fully dedicated to HSEQ topics or whether they endorsed the role as HSEQ leader among the project team. This information shall be captured within the Project HSEQ plan.

4.7 Employer's authority

For any work site under the responsibility of Employer (assembly yard, onshore and offshore site), Employer shall have ultimate authority for the management of safety. The Employer may require the Contractor to remove (or cause to be removed) any person employed on the Site or in connection with the Works, including the Contractor's Representative if applicable, who:

- persists in any misconduct or lack of care;
- carries out duties incompetently or negligently;
- fails on more than two (2) occasions to comply with any provisions of the Contract and the Employer's Representative has notified the Contractor in writing of such breaches;
- has acted in a manner which is prejudicial to safety, health, or the protection of the environment.

The Contractor shall be responsible for replacement of such personnel as soon as possible with competent personnel at no extra cost for the Employer.

4.8 Legal compliance costs

All the costs needed to comply with all the local HSEQ legal requirements shall be covered by Contractor. This shall include fire protection measures and training needs for Contractor Personnel.

Contractor shall at his expense:

- comply with all national laws, codes and international standards that apply to the work, Employer HSEQ Requirements which apply to the contracted job.

- confirm its compliance (and that of any Subcontractors) with the abovementioned legislative and legal acts, rules, and instructions at the request of Employer.
- ensure that all potential Hazards and risks are identified, evaluated and mitigated prior to the commencement of any activity.
- possess and apply properly when required all the equipment needed to carry out the work as well as all the clothing, safety devices and personal and collective protection devices required.
- plan all actions, controls and inspections aimed at ensuring that HSEQ requirements are observed, applying the measures defined in his own HSEQ Management System.
- be fully aware that they are expected to bring to the immediate notice of their supervisor all HSEQ risks which they believe not to be under adequate control, so that action may be taken to prevent potential injuries or other losses and provide a safe and health workplace.
- be fully aware of current Employer HSEQ practices which the Contractor shall comply with, such as the Permit-to-Work system, Emergency Plan and so on.
- Contractor shall be responsible for the Health and Safety, Environment and Quality, and Public Safety management of the work, at his own cost which includes, but is not limited to:
    - costs of worksite and living areas cleanness.
    - tidiness and disposal of their waste.
    - cost of clearance of any location upon completion of the contracted job.
    - cost of soil restoration / rehabilitation upon works completion.
    - cost of disposal of all waste from any source under his care, custody or control and generated through the performance of the contracted job. This kind of waste are identified as their wastes, a waste register is also requested where is reported the amount, the typology, the kind of storage provided and the final disposal or reclamation activities.

5. Health and Safety, Environmental and Quality Management System

Contractor shall have in place and maintain for the duration of the Contract a Health and Safety, Environmental and Quality Management Systems, adequate to assure a product or service that complies with the Employer's specifications and applicable regulatory requirements, which shall be integral to the processes to be employed for the contract.

The Contractor's Management Systems shall conform to, or align with, ISO 45001, ISO 14001 and ISO 9001 or equivalent and be suitable for the works. The Management Systems shall be audited by an accredited third-party body and maintained to the requirements of the latest version of the standards for the duration of the contract.

Contractor's HSEQ MS should satisfies the following general requirements:

- Contractor shall have a system that is suitable and sufficient to identify hazards and manage the risk of its activities to As Low As Reasonably Practicable (ALARP) level to protect Company and Contractor personnel and Public, which are associated with the execution of the contracted activities, inclusive of Subcontractor activities (procedure, work instructions etc.).

- Contractor shall have a system that is suitable and sufficient to identify and manage the risk related to the health and environmental impacts of the activities (including Subcontractor activities) to be undertaken within the contract framework (procedure, work instructions etc.) to As Low As Reasonably Practicable (ALARP) level, to protect Company and Contractor personnel, Public and the environment;
- Contractor shall advise the Employer of any revisions or amendments to Contractor's management systems issued during the term of the Contract and shall review its MS at least annually and update it as necessary.

For high-medium risk level contracts the Vendor's HSEQ MS shall be audited by an accredited third-party body and maintained to the requirements of the latest version of the standards for the duration of the contract. The copy of the of ISO 45001:2018, (H&S), ISO 14001, (E) and ISO 9001, (Q) certification shall be provided to the Employer. In the event of any changes or if accreditation is withdrawn the Employer shall be informed and updated accordingly.

Throughout the duration of the contract, Company reserves the right to audit the HSEQ Management System of Contractor.

5.1 International Safety Management Certification

Entered into force on 1st July 1988 as SOLAS Chap. IX, the ISM provides an international standard for the safe management and operation of ships and for pollution prevention. Its objectives are ensuring safety at sea, preventing human injury and fatalities and avoiding damage to the environment.

It is applicable to all oceangoing ships over 500 GT and to the owner or management company that has assumed the ship operation responsibility.

If the Vendor is operating the vessel engaged on international voyages, such as: passenger ships, including high-speed passenger crafts; oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards; other cargo ships and mobile (self-propelled) offshore drilling units of 500 gross tonnage and upwards in addition to the ISO standards defined above in section 3.7.1 shall provide in accordance of ISM Code a copy of Document of Compliance (DOC) issued to the Vendor and SMC (Safety Management Certificate), issued to each Vendor's vessel.

6. Planning

6.1 Objectives

Along with the Management System objectives highlighted in the OW Polska HSEQ Policy (Attachment 1), the Employer has the following further objectives:

- Employer and Contractor staff working on the project will have zero accidents and zero high potential incidents;
- Contractors will have sufficient organisational capability and adequate numbers of competent personnel to deliver their respective aspects of the project;
- Employer and Contractor staff working on the project will have a risk assessment for every task and for every site visit;
- Employer and Contractor shall comply with all relevant national and international legislation and all environmental consenting and planning requirements;
- Employer and Contractor shall produce legally compliant designs where the risks are reduced to as low as reasonably practicable; and
- The works shall have no unintended impact on the environment.

6.2 Contractor Objectives

The Contractor shall produce its own targets and objectives appropriate for its scope of work on the project. They should be equal to those set by the Employer as a minimum and stated within Project HSEQ Plan.

6.3 Project Key Performance Indicators (KPIs)

Employer with Contractor will define Project KPIs that will have to be strictly followed by Contractor. The KPIs will consider the following elements, but not limited to:

- Organization & HSEQ management system;
- Leading KPIs (Management visits, audits/inspections, etc.);
- Lagging KPIs (LTIF, TRIR, etc.).

6.4 Risk Management

The Contractor organisation shall have a process for the management of quality, health and safety, and environmental risk as outlined in the following sections.

For the identification and assessment of risks, studies such as HIRA/HAZID, HAZOP, ENVID or any other risk assessment process according to the international recognised standards applicable for the providing services and/or product will be required.

It is Contractor's responsibility to prove that all risks related to the activities are properly identified and all control measures are applied to get the risks up to a minimum ALARP (As Low As Reasonably Practicable) level.

For the purposes of effective management, the Employer makes a distinction between operational risk and design risk.

Operational risk includes all those 'live' risks present in the conduct of project site activities, whereas design risk includes those aspects of the project design process that have been identified in the engineering work packages.

The Contractor shall ensure that the distinction is clear as appropriate to its scope of work.

Unless otherwise agreed, all documentation must be provided to OW in the English language.

6.4.1 Method Statements and Risk Assessment (MSRA)

The Contractor shall have a method for the identification, assessing, recording, controlling and monitoring risks to health and safety, and the environment associated with any design and/or operational activities.

The Contractor shall develop and implement all identified controls whilst carrying out the activity. Implementing controls is to be officially documented in a formal MSRA register and proactively monitored during the course of their Work. This shall be shared with the Employer at an agreed frequency for the duration of the Contract.

The findings from any risk management and assessment process (in particular, the controls required) shall be communicated to those affected by activities.

These should be used in the development of method statements and any procedures necessary in the form of a safe system of work, appropriate the scope of work being done.

6.4.2 MSRA Review

MSRA review periods shall be agreed between Employer and Contractor but at least shall cover the following non-exhaustive list of changes:

- legal or other requirements,
- change in the scope of works,
- change in tools / materials / equipment being used,
- change to the task environment and inherent site hazards,
- change in the resource levels of the working party,
- change to personnel within the working party, or a
- change to competency levels of personnel.

Each MSRA shall be submitted to Employer (Project representative) for review and acceptance four weeks prior to the work activity commencing. Failure to comply with this requirement may lead to a delay in the works commencing onsite. The Contractor is not permitted to commence any works onsite until Employer (Project representative) has accepted. Employer shall engage with all key project stakeholders and return collated comments.

Employer shall return the MSRA confirmed 'accepted', or 'rejected' with a method statement review document outlining the review.

6.4.3 HIRA/HAZID

Contractor shall perform HIRA or HAZID studies for all project operations covered in Contractor technical scope of work.

Those Risk Assessment shall be run during dedicated meetings with Contractor's key personnel for the operation (project manager, HSE representative, etc.), relevant Subcontractor's personnel involved including, preferably but not limited to, technical specialist(s), master, and party chef for offshore Works, etc. The Employer shall be systematically invited to such meetings. Those HIRA or HAZID sessions should preferably start with an overall presentation of the risk assessed procedure and planning using appropriate supporting material such as power-point presentation or equivalent. Those HIRA or HAZID shall be systematically sanctioned by a dedicated report. HIRA or HAZID meetings arranged by Contractor only throughout a software communication platform such as Teams, Skype, Webex shall remain exceptional and require preliminary information and approval by The Employer.

All outcomes / actions shall be closed prior to start any offshore operation. Prior to start a new offshore operation, a Kick-Off Meeting shall be performed on board vessels with all involved parties in order to present the procedure confirm that assumptions of the HIRA are still valid and confirm that all outcomes and actions from HIRA are closed.

On board vessels and barges, in a situation where Contractor's activity requires multiple subcontractors leading to coactivity with potential risk of hazardous interferences, the HIRA shall be completed by a communication/coordination matrix between all parties and by a clear description of roles and responsibilities for the execution of the Work.

6.4.4 HAZOP

The objectives of the HAZOP study are to:

- Identify all potential hazards and operability problems that could arise during the engineering phase. Where these exist, ensure that appropriate actions are undertaken to resolve them through the design process;
- Provide input to and interface with other safety studies;
- Provide a traceable audit trail for assurance that hazards and operability issues are being identified and addressed.

The HAZOP technique provides a means of systematically reviewing the design and operation of a system to identify the potential occurrence of hazardous events (impacts on people, property, or the environment), or operability problems (impacts on process efficiency or productivity). It is based on the premise that a hazard is not realized if the process is always operated within its design intent. A HAZOP study is conducted by a team of individuals led by a person knowledgeable in the technique. The HAZOP technique involves structured brainstorming using a set of standard guidewords that propose deviations from process parameters. The team determines if and how the deviation could realistically occur and, if credible, evaluates whether the consequences are significant, as defined by the scope of the Study. The team may then determine whether existing safeguards are adequate to address the deviation. If they are inadequate, then actions must be identified to ensure that design changes, hardware changes or procedural safeguards are developed to address the deviation.

A standard list of guidewords must be developed. If correctly applied to a complete list of relevant parameters, the result will be the generation of all deviations from design intent. This helps to ensure that the design is explored in every conceivable way.

The methodology to be adopted for the HAZOP conformed to that proposed by the European Process Safety Centre in their Guide, 'HAZOP – Guide to Best Practice'. A dedicated methodology procedure shall be agreed between Employer and Contractor, prior HAZOP workshops.

6.4.5 ENVID

An Environmental Aspects and Impacts Identification (ENVID) methodology shall be applied to identify and assess the significant environmental aspects and impacts associated with Projects activities and review the associated mitigation measures required.

Contractor with its Project Manager and HSE representative shall call for an ENVID meeting in order to identify and quantify the main environmental risks of the Project throughout the various steps of the Work.

The ENVID study is a management tool communicated to the Project Manager, the Management Team, including the HSEQ manager. ENVID could be combined with the HIRA when necessary.

6.4.6 Job Safety Analysis / Task Risk Assessment

It is required for routine and non-routine tasks to perform a risk analysis review called Job Safety Analysis (JSA) or Task Risk Assessment (TRA) to determine all prevention measures associated to the specificities of the activity. The results of this analysis shall be recorded in a JSA form:

- For routine or repetitive tasks, generic JSAs/TRAs are used. They are subject to periodic review to ensure they remain valid with the possibility of new work conditions.
- For non-routine tasks, a specific JSA has to be developed prior to work commencement.

The JSA/TRA document details:

- The work to be performed,
- Tasks required for the execution of the work,
- The necessary tools and equipment,
- The required PPE,
- Any products used, as well as their potential hazardous effects,
- The supervisor / foreman of the Work,
- A detailed description of the planned execution of the work, as well as the control means adopted to check whether all these activities are carried on in compliance with all safety rules and regulations,
- The works that require specific Permit To Work.

Results of JSA/TRA shall be presented and commented to the personnel in charge of the activity by the supervisor during the pre-job meeting. The JSA shall be kept with the Permit To Work (if any) near the location where the work is carried out.

Contractor shall be responsible for its subcontractor's HAZID, HIRA, ENVID and JSA.

6.4.7 Simultaneous Operations (SIMOPS)

Contractor shall work in a proactive manner with Employer and others parties to identify possible SIMOPS activities and develop specific practices or measures in order to minimize HSE risks.

A special care shall be paid to possible co-activities at worksite between project works and any other third-party activities.

A dedicated risk analysis shall be performed in order to ensure a proper identification and mitigation of all the risks generated by these simultaneous operations.

6.5 Project Plans

This section sets out the Employer's expectations for the Contractor's project plans.

6.5.1 Project Plans – Project Quality Plan

The Contractor shall prepare, submit and maintain a Project Quality Plan or, if appropriate given the nature of the scope of works, multiple Project Quality Plans that cover the full extent of the works, to be reviewed by the Employer at least 8 weeks prior to commencement of Works and upon each revision.

The plan shall cover the following subjects ***as relevant*** to the works:

Subject	Details
Scope	Intended Outcome
Context of the Organisation	Needs and expectations of interested parties determining the scope of the Quality Management System and Processes
Leadership	Quality Policy document Organisational roles, responsibilities and authorities
Planning	Actions to address risks and opportunities Objectives and planning to achieve them Planning of changes
Support	Resources • General • People • Infrastructure • Environment for the operation process • Monitoring and measuring resources • Organisational knowledge Competence Awareness Communication Documented Information General • Creating and updating • Control of documented information

Subject	Details
Operation	Determination of requirements for products and services • Customer communication • Determination of requirements related to the products and services • Review of requirements related to products and services Design and development of products and services • Design and development planning • Design and development inputs • Design and development controls • Design and development outputs • Design and development changes Control of externally provided products and services • Type and extent of control of external provision • Information for external providers Production and Service Provision • Control of production and service provision • Identification and Traceability • Property belonging to customers or external providers • Preservation • Post-delivery activities • Control of changes • Release of products and services • Control of non-conforming process outputs, products and services
Performance Evaluation	Monitoring, measurement, analysis and evaluation • General • Customer satisfaction • Analysis and evaluation Internal Audit Management Review
Improvement	Non-conformity and corrective action Continual Improvement

It shall apply as appropriate to the following stages of the works:

- Procurement
- Design
- Fabrication Start-up
- Manufacturing-in-process
- Post FAT (storage and transportation)
- Preassembly
- Installation
- Post-commissioning
- Purchasing
- Prefabrication
- Materials in
- Factory Acceptance Test (FAT)
- Site Arrival
- Transportation
- Commissioning
- Site Acceptance Test (SAT)

6.5.2 Project Plans – Inspection, Test and Audit Plan (ITAP)

For all fabrication and construction activities, and as appropriate for other activities, the Contractor shall prepare an Inspection Test and Audit Plan (ITAP) as part of the Quality Assurance aspect of the

overall Quality Management Plan. These shall made available to the Employer minimum of four weeks prior to works starting (and following any revisions). The Employer shall review the ITAP before Works can start.

Each ITAP shall clarify the scope, define the contents and list all references (drawings, standards and specifications) used in the plan.

The ITAPs shall set out critical check points (witness and/or hold points etc.) at various stages within a process, not just at the end. Each check point shall be a scheduled inspection or verification activity where the Employer and Contractor will make sure that things are progressing as they should be.

The following are the most common categories of inspection / test activity. Suggested abbreviations are included in brackets:

- **Witness (W):** The activity will be verified by the party / individual acting as a witness to the satisfactory completion of the item.
- **Inspection (I):** The activity will involve a party or person undertaking an inspection of the item.
- **Hold Point (HP):** The next stage must not commence until the item is completed satisfactorily.
- **Surveillance (S):** A 'surveillance' is essentially a mini audit which reviews an aspect of the works in more detail to verify compliance.
- **Audit (AU):** An audit would require that a competent auditor undertakes an audit to verify the item is satisfactorily completed (e.g. for off-site manufacture).

A typical plan header is set out below:

	Phase		Test and Control					Inspection Point		
Sequential Number	Work Procedure	Activity	Frequency	Equipment	Responsible	Acceptance Criteria	Record Document	Contractor	Employer	Other

For each check point the Contractor shall specify exactly what to look for (perhaps refer to another document for details), how the check is recorded and evidenced, and who must perform/sign off the inspection.

An ITAP is not the same as an inspection checklist. An ITAP states when in the process to perform an inspection. The details of the inspection are contained in the checklist and may be recorded there.

An ITAP might refer to different checklists for each inspection point or could refer to a code or national/international standard that sets out the requirements for what and how the check must be performed.

6.5.3 Project Plans - Project HSE Plan

The Contractor shall prepare, submit and maintain a Project Health Safety and Environmental Plan that cover the full extent of the works, to be reviewed by the Employer both at least 8 weeks prior to commencement of Works and upon each revision. These plans should also contain physical site and/or asset security information.

The overall objective of the Project HSE Plan is to present the Contractor's organisation and arrangements necessary for the implementation of his HSE Management Systems. It will describe and detail how the Contractor will manage HSE throughout the lifetime of the Contract. It shall focus on contract specific risks and the management of controls to eliminate, reduce or mitigate these risks.

Project HSE Plan shall ensure that all the project activities which impact on HSE are planned, programmed and carried out in accordance with Applicable Law and International Standards.

The plan shall cover the following subjects ***as relevant*** to the works in addition to other items as identified:

Subject	Details
Context of the Organisation	• history, • technical details, • legal requirements
Leadership	• Policy, • commitment, • responsibility (including allocation of the HSEQ line responsibilities)
Planning	• Actions taken to address risk and opportunity • Objectives and means to achieve them
Operation	**Processes and/or procedures for:** • Management Systems • Procurement and Contractor Management • Sub-Contractor Management • Security Arrangements • Design • Management of Change • Business Continuity • Emergency Response • Behavioural Safety • Occupational Health • Medical Fitness for Work • Personal Protective Equipment • Work Stations and Display Screen Equipment • Driving • Remote Working • Human Factors • Ergonomics • Integrated Safe System of Work • Wind Turbine Safety Rules • LV Safety Rules • HV Safety Rules • Other applicable Electrical Safety Rules • Permit to Work System • Marine Coordination • Induction • Visitors • Welfare Facilities

Subject	Details
	• Smoking • Substance Misuse • Emergency Response – Fire and Evacuation • First Aid and Medical Emergency Response • Safety Equipment • Scaffolding • Electricity • Risk Assessments and Method Statements • Work Equipment • Waste • Working at Height • Ladders • Welfare • Control of Lifting Operations • Maintenance of Plant and Equipment • Operating Plant • Portable Appliance Testing • Noise • Vibration • Storage of Materials • Storage of Fuels • Storage of Cylinders • Gas Cylinder Safety • Chemicals • Hazardous Substances • Biological Hazards • Confined Spaces • Manual Handling • Asbestos • Fire • Site Security • Traffic Routes • Deliveries and Removals • Existing Services • Ground Conditions • Temporary works • Excavations • Marine and Aviation • Marine Coordination and Communication • Vessel Inspection • Access and Egress • Transfers to and from Vessels • Vessel-to-Vessel Transfers • Vessels – Management Systems • Vessels - Bridging Document • Vessels - Suitability Survey and General Inspection • Vessel Equipment Audit and Inspection • Simultaneous Operations (SIMOPS) • Diving • Geological Uncertainty • Metocean

Subject	Details
	• Navigation • Aviation • Ports and Mobilisation • Subsea Operations • Unexploded Ordnance • Asset Integrity • Plant and Process Information • Operations and Maintenance Procedures
Performance Evaluation	• Reporting • Monitoring and Measurement • Analysis and Evaluation • Management Review
Improvement	• Non-conformity and corrective action • Continual Improvement

6.5.4 Project Plans – Plan "BiOZ" - Safety and Health Protection Plan for construction works

The Contractor shall prepare, submit and maintain a Safety and Health Protection Plan (Plan BiOZ) that cover the full extent of the construction works as per requirements of the Construction Law Article No. 21a (JoL 2021.2351 consolidated text 2021.12.20 with amendments). The context of Plan BiOZ shall correspond to the requirements defined by the Regulation of the Minister of Infrastructure of 6 February 2003 (JoL 2003.120.1126 issued 2003.07.10 with amendments). Plan BiOZ to be reviewed by the Employer both at least 3 months prior to commencement of Works and upon each revision.

If engaged as a Consortium Leader or Principal Contractor, the Contractor shall prepare, submit and maintain the Plan BiOZ covering all construction works carried out by Contractor and Subcontractors.

The Contractor shall obtain all required by Applicable Law approvals for Plan BiOZ 8 weeks prior to commencement of Works.

6.5.5 Project Plans – Environmental Management Plan

The Contractor shall prepare, submit and maintain an Environmental Management Plan or Plans that cover the full extent of the works to be reviewed by the Employer both at least 8 weeks prior to commencement of Works and upon each revision.

The plan shall cover the following subjects ***as relevant*** to the works:

Subject	Details
Context of the Organisation	• history, • technical details, • legal requirements
Leadership	• Policy, • commitment, • responsibility
Planning	• Actions taken to address risk and opportunity • Objectives and means to achieve them

Support	• Resources • Competence • Awareness • Communication
Operation	Processes and Procedures for: • Induction • Visitors • Waste Management • Waste description • Waste minimisation and Recycling waste description • Storage of waste • Labelling of waste • Waste Transfer • Waste Records • Special Waste • Storage of Materials • Chemicals • Hazardous Substances • Water pollution • Large scale loss of fuel containment • Bunkering, refuelling and temporary generation • Oil spills • Chemical spills • Air Pollution • Noise and Vibration • Flora and Fauna • Seabed impact • Jack up barges • Vessel anchoring • Dropped objects • Archaeology • UXO • Vessels – management systems • Vessels - Bridging Document • Vessels - Suitability Survey and General Inspection • Vessels – Biosecurity • Marine Pollution Contingency Plan • Emergency Response
Performance Evaluation	• Reporting • Monitoring and Measurement • Analysis and Evaluation • Management Review
Improvement	• Non-conformity and corrective action • Continual Improvement

6.5.6 Project Plans – Emergency Response Plan

The Contractor shall prepare, submit and maintain an Emergency Response Plan (ERP), that covers the full extent of the works to be reviewed by the Employer both at least 8 weeks prior to commencement of Works and upon each revision.

The ERP shall cover the requirements included in Employer ERP and the following subjects ***as relevant*** to the works for onshore and offshore operations:

- Onshore/Offshore personnel;
- Equipment;
- Competency and Training;
- Communication; and
- Emergency Scenarios and Response Flowcharts.

6.5.7 Project Plans – Emergency Response Cooperation Plan (ERCoP)

If engaged as a Consortium Leader or Principal Contractor, the Contractor shall prepare, submit and maintain an Emergency Response Cooperation Plan, (ERCoP), that covers the full extent of the offshore works to be reviewed by the Employer both at least 8 weeks prior to commencement of Works and upon each revision.

The ERCoP shall be drafted in the format as defined in Employer ERP.

6.6 Design

Designs shall be prepared and shared with the Employer from the onset of design works. All Designers shall adhere to the Employer safety design requirements, Safe by Design Principles and Global Offshore Wind Health and Safety organisation (G+) Safe by Design relevant workshop recommendations.

The Contractor shall develop and maintain a design plan or plans for its scope of work. Each "Designer", as appointed in accordance with applicable international and national law, shall comply with the local legal requirements.

For the purposes of effective management, the Employer makes a distinction between operational risk and design risk.

Operational risk includes all those 'live' risks present in the conduct of project site activities, whereas design risk includes those aspects of the project design process that have been identified in the engineering work packages.

Employer will actively seek to improve Safe by Design performance by sharing of lessons learned, education, new technology, innovation, and any other appropriate initiative with Contractor.

6.6.1 Design Risk Register

Design Risk Register is to be regarded as a management tool for the identification and elimination/reduction of hazards and risks associated with the project/concept. The Design Risk Register can be used to create a single document where all significant design risks can be identified, collated, monitored, and ultimately reduced as part of the design process. At the end of the design process, the register will provide an audit trail of design decisions.

All designers are required to analyse their designs as they develop and identify any significant hazards associated with them. As significant hazards are identified they will be added to the Design Risk Register and the relevant actions taken to reduce or eliminate the associated risks will be recorded. As each significant hazard is reduced to its lowest practicable level, the remaining hazard and any identified control measures will be logged and subsequently communicated to Contractors during next stage of the Project.

The Contractor shall maintain a Design Risk Register for its scope of work to support the management of design health and safety, and environmental risk. This shall be shared with the Employer at an agreed frequency for the duration of the Contract.

6.6.2 Design Change Management

Contractor shall assess the safety implications of design changes and implement mitigation when design change imports hazards. Contractor shall update the Design Risk Register and any related system definitions when required to take account of design change.

7. Support

This section covers the provision of resources, communication and responsibilities for HSEQ Management.

7.1 Resources

The Contractor shall create and maintain an up-to-date organogram for the works. This shall be submitted to the Employer for review prior to works starting and after each revision.

7.2 Responsibilities

The Contractor shall define and document the responsibilities of all personnel contributing to the works. This shall be submitted to the Employer for review prior to works starting and after each revision.

The Contractor shall detail its procedure for addressing any safety related accountability and disciplinary issues, including violation levels and discipline action levels.

The procedure must demonstrate focus on accountability and zero tolerance to deviations from agreed contractual and operational requirements, capture the responsibilities of operatives on the project under their control, and outline what measures are in place to address any and all instances where there is deviation from those responsibilities.

The procedure shall address the methodology for holding all operatives on the project under their control equally responsible and accountable for their actions.

The Contractor shall report to Employer any and all safety related disciplinary actions that have taken place, including the detail.

7.2.1 Stop Work Authority

All project stakeholders, role holders, contractors, suppliers, operatives and visitors have the power to stop an activity on the grounds of safety where there is a question or a risk to health and safety of operatives, those who visit the site, or those who are impacted by works (the “Stop Work Authority”). The Stop Work Authority also applies to any potential environmental impacts identified.

The Stop Work Authority provides the opportunity for all to stop work and take the time to correct any issues and promotes and supports accountability that everyone has the responsibility for safety.

The Contractor shall promote, support and implement the Stop Work Authority with its operatives and that of its supply chain.

Where stop work is initiated, the person raising the objection shall contact their supervisor in the first instance. If the supervisor is unable to resolve the situation, then the supervisor shall contact the Employer representative for direction.

In cases where work has been stopped, and additional control measures are identified, the Contractor shall update the relevant Risk Assessment and supporting Safe Systems of Work and re-brief all personnel involved prior to restarting the works in line with the requirements of section 7.6.3.4 Daily Briefing.

7.2.2 Client Representation

Employer will have representation across multiple sites covering various roles. These include, but are not limited to, quality assurance, ecological/environmental and health and safety biased functions along with supervisory and management positions.

Each of these roles will have the authority to reasonably stop the works where breaches of requirements and/or legislation are identified which puts individuals or the project at risk.

The Contractor shall take all reasonable steps to facilitate representatives of Employer within their planned welfare provisions.

7.3 Competence and Organisational Capability

The Contractor shall have a system in place to ensure that it is providing competent staff and has the organisational capability required for the works.

For the duration of the contract, the Contractor shall ensure it is at all times in a position to demonstrate collective and individual competence.

The Contractor shall draft, maintain and keep available at all times, a documented and comprehensive Competence Matrix for all personnel under its control. The Competency Matrix shall be submitted to Employer at least 8 weeks prior to commencement of Works and upon each revision.

The Contractor shall have a Competence Matrix available at the project site and shall maintain this at all times. Upon request, this document shall be available for Employer review at any time.

At all times the Contractor shall maintain records to demonstrate competence in accordance with the Competence Matrix.

Employer reserves the right to refuse any nomination of personnel where the competency of the appointed person / competent person cannot be fully demonstrated.

7.3.1 Contractor Site Manager Competence

Site Managers shall hold an industry standard qualification for their role, or be able to demonstrate adequate skills, knowledge, training and experience. This shall be subject to the approval of the Employer.

For onshore site management positions, the site manager shall have IOSH Managing Safely course or equivalent.

Where an equivalent is presented, this shall be subject to approval in writing by Employer and shall be documented in the dedicated Project HSE Plan.

7.3.2 Contractor Site Supervisor Competence

Offshore Site Supervisors shall hold an industry standard qualification for their role, or be able to demonstrate adequate skills, knowledge, training and experience. This shall be subject to the approval of the Employer.

For onshore site management positions, the site manager shall have IOSH Managing Safely course or equivalent.

Where an equivalent is presented, this shall be subject to approval in writing by Employer and shall be documented in the dedicated Project HSE Plan.

7.3.3 Operatives and Visitors

Offshore site operatives shall hold an industry standard qualification for their role, or be able to demonstrate adequate skills, knowledge, training and experience. This shall be subject to the approval of the Employer.

For works performed onshore, the Contractor shall ensure that all those under its control are able to demonstrate the minimum competency level to be able to access site.

In addition to the above, the Contractor shall also take account of any additional Client or Consortium Leader or Principal Contractor specific requirements for access to sites.
The Contractor shall detail in the Project HSE Plan the method that will be used to ensure that all trainings are current at the time of induction, and thereafter kept current for the duration of the project. The Contractor shall include a system for verifying competency and shall have maintain a record of such (e.g. trainings validity can be confirmed through checking online).

Each operative is required to provide the valid required training as part of the site induction process. Employer reserve the right to refuse any operative entry who does not present a valid required training.

Where visitors to site are unable to demonstrate the above competencies, the Contractor shall ensure that a suitably competent and authorised member of staff shall accompany the visitor at all times whilst they are onsite.

Access requirements apply to all those who are required to access the construction area of the project. For example, visitors, security guards, etc.

7.4 Training and Awareness

The Contractor shall also ensure that personnel receive any training required as part their role, and that they are kept informed about developments that might affect their competence.

The Contractor shall submit a Training Matrix to the Employer both at least 8 weeks prior to commencement of Works and upon each revision.

The Project HSE Plan shall detail the arrangements for ensuring that operatives have sufficient information, instruction and training to carry out their role on the project.

The Contractor shall provide and maintain a documented training matrix of all training requirements including:

- employee name
- project role title
- project role description / classification
- specific training requirements identified for this project
- Contractor and/or third party resources required to be trained
- a listing and description of available HSE training modules, including a description of which modules are required or recommended for specified project role;
- the list of positions and the associated mandatory training with the validity period of the trainings
- a schedule for base case (i.e. initial) and refresher training courses.

Job titles, project role titles and role descriptions shall align with organisational charts included in the Project HSE Plan.

The type and level of training to be provided shall be appropriate to the job function and the associated risks and take into account different levels of responsibility, ability, language skills and literacy.

The Contractor is required to maintain the training matrix and associated training records throughout the project life and should be available to Employer upon request.

The Project HSE Plan shall detail how the Contractor shall ensure awareness of every worker carrying out construction work under its control. This shall include any information and training which they need for the particular work activities to be carried out.

7.4.1 Offshore training requirements

All personnel who are required to perform offshore work shall be in the possession of a valid BOSIET (Basic Offshore Safety Induction and Emergency Training) or GWO (Global Wind Organization) Offshore Basic Safety Training certificate or equivalent. Copies of those certificates shall be carried by all personnel going on board.

HSE training of registered marine personnel e.g. vessel crew, shall be in compliance with the latest edition of the Safety, Training and Watch-Keeping (STCW) Convention and Code issued by the International Maritime Organization.

When requested by the Employer, Contractor shall provide copies of personnel training records and competency certificates from a recognized training authority. The Employer reserves the right to reject any Contractor's employee or subcontractor regarded as not having sufficient training or experience to be able to perform the Work.

7.5 Subcontractor Competence

The Contractor is required to have a system in place that ensures any Subcontractor appointed is competent to perform their scope of work.
The Employer may choose to have a level of approval or notification prior to the appointment of certain Subcontractors. Furthermore, on a periodic and risk basis, the Employer may elect to audit the Contractor's system and its effectiveness.

7.6 Communication, participation and workforce engagement

Communication is an important item in the HSEQ Management System. It has to be organized on a two way system between management and staff. Several tools can be used (safety signs, posters, direct communication etc.) and needs to be comprehensive to everyone.

As per Employer HSEQ Policy, Contractor has to transmit to the entire workforce, from the top management to the staff, the message that HSE is the number one objective against time and costs. In addition, the communication between Employer and Contractors/Subcontractors gives the possibility to highlight and correct HSE concerns.

Contractor shall put in place a HSEQ communication system and reach all of their employees and Subcontractors. Such systems include: Induction, Site familiarisation, Tool Box Talk and Stand Down, Time Out For Safety, Safety Meetings, HSE Workshops / Forums, Safety Steering Committee, HSE Awards etc.

The Contractor shall have an organization that assures all employees have well understood HSE as a matter of everyone and that all employees have Stop Work Authority - the right to STOP a hazardous activity. Contractor shall protect its employees if they stop a hazardous activity.

The Contractor shall have a documented procedure for how it communicates and shares HSEQ information and knowledge internally and externally.

7.6.1 Communication

7.6.1.1 Language requirements

The language used on any worksite shall ensure that all messages/instructions/method statement related to Health, Safety and Environmental are clearly understood by all.

At least, one Polish speaking person shall be present on worksite to ensure communication with any third parties including Polish authorities.

7.6.1.2 Safety Handbook

Safety handbook should be provided during the induction process. The safety Handbooks should be available ideally in Polish and in English. It should be provided to personnel with an overview (but not limited to) of the:

- Critical HSE information
- Worksite rules and regulations
- Minimum HSE expectations and guidelines
- Emergency guidelines

Pictures shall be utilized to the maximum extent possible to compensate for issues related to language translation and worker literacy.

7.6.1.3 Safety signs

Safety signs are an integral part of the worksite HSE system and an important means of communicating local hazards. Safety signs shall be in Polish and English and made to a nationally and/or internationally recognized pictorial standard.

All hazardous areas, such as storage for dangerous chemicals and high noise areas shall be clearly marked to this effect and the appropriate additional PPE required for entry into the area provided at the point of entry, or a notice posted in the appropriate language as to where this PPE can be obtained.

7.6.1.4 Posting and notice boards

The notice board is a useful medium for communicating all types of important HSE information and feedback to the workforce. Typical information to be presented on the notice boards should include, as applicable:

- HSE representative and management on board,
- HSE policy
- Project HSE goals and objectives
- General site rules
- Emergency Procedures including contacts and MEDEVAC arrangements
- Worksite Map and Muster Stations, First Aid and Fire Fighting facilities locations
- Safety Statistics and Accident/Incident analysis
- Safety suggestion schemes or any other initiatives
- Safety bulletins

Moreover, contact details of Polish local authorities, must be clearly posted on the worksites notice boards.

Site HSE team ensures that the information is kept up to date.

Subcontractors can implement their own communication system so as to quickly provide information to their staff and to all other people on worksite about specific or general HSE issues (safety alert, advice cards, corporate bulletins etc.).

7.6.1.5 Environmental Awareness

In order to communicate environmental awareness topics, recognition to the workforce of performance, and/or objectives set with respect to significant environmental aspects, environmental awareness notices shall be displayed.

Site HSE team ensures that the information is kept up to date.

Appropriate topics, which also have health and safety implications include:

- Energy consumption
- Oil spill prevention
- Waste segregation
- Water consumption
- Ecological footprint minimization

7.6.1.6 HSE Alerts & Bulletins

Contractor may receive periodic HSE Alerts from various industry organizations that provide useful information of recent incidents and lessons learnt that are equally valid for Project Work. Throughout the duration of the Project, Contractor should distribute them to be posted on notice boards or discussed at meetings.

HSE Bulletins & Alerts are a valuable source for safety meeting / Tool-Box Talks topics, especially where the lessons learned could directly impact on the Work being performed. The manager or supervisor or foreman will take the opportunity of these “sharing” moments for giving rise to curiosity and questions / answers among the team members.

The Contractor will be required to develop HSE bulletins in case of significant HSE events such as incident, accident or near-misses and good practices to ease communication and cascade lessons learnt to all project relevant personnel.

7.6.2 HSE induction

The Contractor shall ensure that all personnel working on any activity as part of the works receive a suitable and sufficient induction prior to starting work.

The induction shall outline and include the requirements of the Project HSE Plan and any general site arrangements.

This should include as a minimum:

- Project Overview;
- Structure and Organogram (as appropriate);
- Individual Roles and Responsibilities;
- Emergency response and first aid;
- Site specific hazards; and
- Site Rules;
- Risk Assessment;
- PPE;
- Safety Management System and Procedures;

- Training;
- Welfare;
- Accident and Incident Reporting;
- Equipment;
- Security; and
- Environmental Rules.

The Project HSE Plan shall detail the arrangements to ensure:

- All operatives shall receive an induction prior to gaining access to the site for the first time.
- Arrangements to update the induction in line with any changes to the Project HSE Plan.
- Arrangements in place to allow for communication of the updated induction to those already on-site.
- Operatives are not permitted to access the worksite until induction and where required, familiarisation are complete, and;
- Operatives not working on the project for more than 1 month shall attend repeat induction (and repeat project site familiarisation where necessary).

7.6.2.1 Site familiarisation

The Contractor shall prepare a site-specific familiarisation for use on the project. The familiarisation shall outline and include the requirements of the Project HSE Plan. This shall form part of the induction process.

The Project HSE Plan shall detail the arrangements for site specific familiarisation to ensure:

- All operatives (including Sub-contractor operatives) shall receive a familiarisation prior to gaining access to the site for the first time.
- Arrangements to update the familiarisation in line with any changes.
- Arrangements in place to allow for communication of the updated familiarisation to those already on-site.
- Operatives are not permitted to access the work site until familiarisation has commenced.

The site specific familiarisation shall:

- include a site tour of the relevant work areas to familiarise the operatives with the physical site.
- include any specific Contractor requirements that the operative must comply with.
- be carried out by the appropriate Supervisor in charge of the works.

7.6.3 Regular meetings

During the course of the Contract, various meetings shall take place to discuss and share HSE related issues between all levels of the workforce, including the Employer, Contractor and any other relevant parties. In any case, Contractor and the Employer shall meet as deemed necessary. Contractor shall prepare and issue a meeting agenda in advance and shall issue Minutes of Meeting (MoM), if not agreed differently during the meeting.

7.6.3.1 Safety Meetings / Forums

Employer will schedule a Kick-Off Meeting and various ongoing Progress, Coordination and Safety meetings to facilitate Coordination, Cooperation and Communication throughout the project works.

The Contractor shall ensure mandatory attendance of a representative at meetings arranged by Employer. As a minimum, the designated Site Manager shall attend these meetings.

The Contractor shall ensure that the Project HSE Plan identifies appropriate meetings to facilitate coordination, cooperation and communication. This shall include meetings at a management level to facilitate coordination between the project stakeholders and also meetings at the operational level to facilitate coordination between the contractors, subcontractors and operatives.

This shall include, but not be limited to:

- Monthly Safety Committee Meetings / Forums to facilitate participation from the operatives.
- Daily / Weekly Coordination Meetings capturing progress, coordination and / or safety management.
- Daily briefings/ Daily pre-shift briefings.
- Pre-job meetings.

7.6.3.2 Weekly and / or monthly progress meetings

Project management's weekly or monthly progress meetings shall start by a "safety" moment. HSE issues shall be discussed during those meetings and attendance of the Project HSE representative is mandatory.

7.6.3.3 Daily Coordination meeting

The organisation carrying out the duty of Consortium Leader or Principal Contractor shall ensure that a daily coordination meeting is held with all contractors to ensure coordination of activities. This shall be facilitated and led by the Consortium Leader or Principal Contractor.

The Contractor shall attend each daily coordination meeting for the duration of the construction works.

The purpose of the daily coordination meeting is to coordinate activities for the day, review any changes on site happening, review any items from the previous day's activity.

The daily coordination meeting shall take place daily prior to any work activity taking place. Where the project is working shifts, a daily coordination meeting shall be held prior to any work activity taking place on each shift.

A representative from each Contractor and its Subcontractors is required to attend each daily coordination meeting.

The Consortium Leader or Principal Contractor shall ensure that each daily coordination meeting is recorded.

7.6.3.4 Daily Briefing

The Contractor shall ensure that all operatives receive a daily briefing prior to commencing work each shift as part of a setting to work process.

The purpose of the daily briefing is to communicate the information discussed in the daily coordination meeting with the operatives with a focus to ensure that operatives are informed of daily coordination requirements. This briefing shall also promote operative participation and consultation in the planning and coordination of activities.

The Contractor shall ensure that each daily briefing is recorded and uploaded to the project electronic document system.

7.6.3.5 Pre-job meetings

The pre-job meeting is an essential part of the risk management process as it is the final link to the worker, i.e. the person who will be directly affected by the hazard.

Prior to the commencement of the daily activities, Contractor with the support of field supervisor team leaders shall conduct a pre-job meeting with the workforce to discuss about the work activities of the day, consider the impact of other activities nearby and to remind workers of the hazards. Evidence of such meetings shall be sent to the Employer for information upon request.

7.6.3.6 Dynamic Risk Assessment

The Contractor shall ensure that a process for dynamic risk assessment is in place for the duration of the works.

The process for dynamic risk assessment shall include the following as a minimum:

- Each working party shall undertake a dynamic risk assessment prior to the work commencing.
- The dynamic risk assessment targets the element of MSRA that will be undertaken on that shift.
- The dynamic risk assessment shall be undertaken by the crew to facilitate participation and consultation with the working party.
- It ensures that any changes are identified and acted upon prior to works commencing.
- It ensures that the dynamic risk assessment can be used as a tool where any changes occur as the activity progresses.

7.6.3.7 Tool Box Talk and Stand Down

The Project HSE Plan shall detail the Contractor procedure for delivery of regular tool box talks to operatives under their control. The Contractor shall ensure that tool box talks are held at least weekly with operatives.

Safety Stand Down addresses may be delivered by Employer. Where these are called, the Contractor shall stand down all site operations ensuring mandatory attendance of all those under their control. The Contractor shall absorb any associated costs and impact on programme following an Employer Safety Stand Down being called.

7.6.4 Workforce Engagement

The Contractor shall regularly consult with employees in matters relating to their health and safety as relevant to the works. The Project HSE Plan shall describe how the Contractor will implement consultation arrangements that efficiently and effectively consult personnel under its control.

7.7 Information Management

This section covers the Employer's expectations for how Contractors manage information, data and knowledge. This section is kept intentionally brief to avoid duplication with other documentation.

7.7.1 Document Development

The Contractor shall have a system for the production of documents, drawings and related files.

7.7.2 Document Control

The Contractor shall have a system for the control, issue, storage and archiving of documents, drawings and related files. The Contractor shall also have a single, named point of contact for document control.

7.7.3 Document Register

The Contractor shall produce a register of documents that will be produced as part of the works. This shall be submitted to the Employer a minimum of one month prior to works starting, or earlier where agreed between Employer and Contractor.

Each item on the register shall have dates for:

- issuing to the Employer;
- review by the Employer;
- return to the Contractor; and
- issuing for particular phases (e.g. tender, design, fabrication, construction, as built etc.).

The document register shall be maintained live and updated and reissued to the Employer on monthly basis.

Depending on the works the Employer may also produce and maintain a document register that it will share with the Contractor.

7.7.4 Document Review

The Contractor shall have a system for the review of documents.

7.7.5 Records Management

The Contractor shall have a system for managing hard-copy information.

7.7.6 'As-Built' Documentation

The Contractor shall issue as-built documentation to the employer in electronic and/or hard copy as determined by the Employer External Document Management Procedure. The dates for issue shall be included in the document register and agreed between Employer and Contractor prior to works starting.

7.7.7 Data Management

All Contractors shall comply with the Employer's data management requirements as separately documented.

7.7.8 Employer-Provided Information

The Contractor shall acknowledge receipt of any Employer provided information and review within a timescale agreed between Employer and Contractor.

8. Environmental Management

The Contractor shall take all reasonable steps to protect the environment on all Sites and to limit damage and nuisance to people and property resulting from pollution, noise and other results of its operations.

The Contractor shall ensure that all Personnel provided by Contractor/Sub-Contractor are aware of, and strictly adhere to all environmental protection and conservation measures as requested by local legal requirements and Applicable Laws and described in Project Information Card and EIA with corresponding EIA approval decision. In particular, Contractor shall ensure that all machinery, engines, tools, equipment, instruments, materials and consumables that Contractor uses during the contract produces the minimum possible adverse effect and whenever impossible to avoid, it will limit emissions and discharges to the lowest amounts possible and in line with Applicable Laws and industry best practices. Contractor shall avoid any adverse effects to people, fauna, flora, soil, air and/or water in the area of activities and surroundings.

8.1 Environmental Management Plan

Contractor shall submit to the Employer a Project Environmental Management Plan as defined in Section 6.5.4 Project Plans – Environmental Management.

8.2 Waste Management

Contractor is responsible for waste management provided that these waste products have been brought to the worksite by Contractor or any of its subcontractors and are generated during the performance of the Contract, or during packaging and temporary storage.

Contractor shall demonstrate that a Waste Management Program is developed in order to provide the most appropriate treatment for each kind of waste produced. This program must consider in priority waste channels that are safe and environmentally friendly. All necessary precautions are taken during storage, transport and handling of waste to ensure the safety of people and preservation of the environment.

Particular attention shall be paid during offshore work. Two categories of waste may be produced from offshore worksites:

1. Ship generated garbage, including any waste related to the operation of a ship that comes under the International Convention for the Prevention of Pollution from Ships (MARPOL Convention), especially its Annex V setting out the rules for the Prevention of Pollution by Garbage from Ships; Examples: the ship's domestic waste, waste water, food waste, incinerator ashes, etc.
2. Waste from offshore work linked to Employer's activity and role as a contracting authority. This type of waste can be further divided into two categories:

    - "Generic" waste which, due to its low volume, properties and physico-chemical characteristics, can be treated as ship generated garbage and is subject to the management rules prescribed by Annex V of the MARPOL Convention; Examples: packaging, plastic fasteners, hydraulic oils, scrap metal, used paint, etc.

- "Specific" waste which, due to its volume and properties, cannot be treated as ship generated garbage; this comes under European and Polish regulations and will be subject to stricter traceability in the context of this Work. Examples: Waste from Employer cables, metal fastening systems used on an offshore substation worksite, etc.

Waste traceability requirements are listed below by category.

8.2.1 Generic waste

Ship generated garbage and "generic" waste shall be monitored by the Contractor in accordance with Annex V of the MARPOL Convention. The Contractor shall provide Employer with the "Document of Compliance" or any equivalent document such as "statement of conformance for MARPOL annex V" certifying compliance with this convention, together with the Garbage Record Book in the format defined in Annex V. As a reminder: "The date, time, position of the ship, description of the garbage and the estimated amount incinerated or discharged must be logged and signed. The Garbage Record Book must be kept for a period of two years after the date of the last entry."

The Contractor shall provide these documents three times a year on 15 May, 15 September and 15 December, and then on completion of work. In the event that the Contractor's service lasts for less than 6 months, the documents shall be provided only once on completion of the service.

Their acceptance partly determines the complete and unreserved acceptance of the work.

8.2.2 Waste from offshore work

Waste from offshore work that does not come under Annex V of the MARPOL Convention ("specific" waste) include "specific" (hazardous and non-hazardous) waste linked to Employer's activity produced on offshore worksites.

A non-exhaustive list of this category of waste is provided below to facilitate traceability by the Contractor:

1. Waste from Employer's cables;
2. Waste related to the transport and installation of an offshore substation:
   - "load-spreading" and "sea-fastening" systems installed on the ship or on a cargo barge. These are carbon steel elements weighing several tonnes, which cannot be reused and are treated as waste after use;
   - transition pieces and steel slings, specifically developed to allow the attachment of the upper part of the substation (topside) to its support structure (jacket, monopod, etc.). Specific and temporary metal catwalks can also be installed to detach the lifting slings once the structure is in place. These are metal elements weighing several tonnes, which cannot be reused and are treated as waste after use.
3. Waste exceptionally removed from the seabed (cables, anchor, to be specified on a case-by-case basis).

8.2.3 Responsibility

In the scope of its service, the Contractor will assume the status of waste producer for the hazardous and non-hazardous "specific" waste. Employer transfers management of this waste to the Contractor.

The service provider is the producer of the waste generated in the scope of its service. The management of dismantled equipment is the service provider's responsibility.

The Contractor will therefore comply with all the requirements of the waste regulation. The Contractor shall designate a suitably qualified waste management contact (the site waste management officer), whose responsibilities will include, in particular:

- ensuring the compliance of waste storage;
- maximising sorting at source;
- ensuring waste disposal and processing, in accordance with the applicable regulations;
- maximising waste recovery.

8.2.4 Waste identification

The Contractor shall identify and list the "specific" waste likely to be produced during the work and shall recommend the method for processing it. A list shall be completed by the Contractor, filled in and detailed (by type, quantity, processing method, etc.).

In the event that unlisted waste is discovered during performance of the work, the Contractor shall notify Employer within 12 hours in writing (email, fax) and shall assume responsibility for its management.

Before the start of the service, the Contractor shall send to Employer the Waste Management Program with an estimation of the waste likely to be produced during the work and its intended processing .

8.2.5 Processing

The Contractor shall assume management of the "specific" waste according to the hierarchy of waste processing methods as provided for in the Environmental Code, namely:

- Preparation for re-use,
- Recycling,
- Any other recovery, notably energy recovery,
- Disposal.

The Contractor shall be able to justify, describe and quantify this management on request from Employer.

The Contractor shall pay particular attention to the storage of waste on the ship and once deposited at the dock in a manner that preserves the environment (contamination of soil, water and between different types of waste, deterioration of waste, various types of pollution, etc.) and personal safety (mercury, toxic or reactive waste, lead-tainted waste, compatibility of different types of waste, etc.).

Hazardous waste must be systematically stored and processed separately from non-hazardous waste.

The Contractor shall, as far as possible, carry out selective sorting and separate collection of non-hazardous waste (in particular, paper/cardboard, metal, plastic, glass and wood waste to be separated from other non-hazardous waste) and each type of hazardous waste.

Waste shall be stored in containers and skips suited to its category (hazardous or non-hazardous) and its volume on board ships.

These containers shall be clearly identified. They must be approved if the waste is considered as dangerous goods for transport (sea, river, road and rail).

A retention system shall be put in place for hazardous liquid waste or waste liable to release effluents. The system shall be sized to avoid any dispersion of this waste.

Waste containers shall be secured in such a way as to avoid accidental spills at sea.

The waste storage area on the ship shall be clearly separated from the materials storage area.

The discharge at sea or burning in the open air of this waste is prohibited.

The diagram showing the organisation of work on board the ship (the “deck layout”) with working areas, storage areas for any necessary materials, storage areas for waste, etc., may be discussed and amended during the risk review organised prior to operations. The final deck layout shall be attached to the Waste Management Program and can be presented by the service provider at the Kick-off meeting to launch operations.

The Contractor shall send to Employer an operational procedure which may detail the organisation of work on the ship, and in particular the plan of the deck at the stern of the ship.

8.2.6 Traceability

The Contractor shall use authorised or approved transport, processing and/or disposal channels. It shall be able to justify any approvals, orders, contracts with relevant environmental authority and the prior acceptance certificates of its service providers at Employer’s request.

Employer reserves the right to impose a processing channel for some of this “specific waste”.

The Contractor shall develop and implement the chronological register of waste produced in the Excel format.

It shall send this file to Employer in the initial format three times a year (15 May, 15 September and 15 December), at the end of the campaign and at any time requested.

The Contractor shall provide Employer with the waste register (in Excel format).

At completion of the service, it shall send any removal slips, waste transfer note and the ADR documents relating to the transport of dangerous goods in particular, and any reminder letters.

Note: the Contractor declares itself to be a “waste producer” when issuing WTN and other tracking documents.

The Contractor shall send to Employer the regulatory supporting documentation relating to waste removal.

The shipment of waste outside Polish territory is governed by special regulations (European Regulation No. 1013/2006, OECD Decision C (2001)107/FINAL and the Basel Convention 1989). Specific documents and declarations are needed. The Contractor shall not send “specific” waste abroad directly, without previously notifying Employer.

8.3 Spill prevention and response plan

All pollutants (e.g. chemicals, hydraulic oils or other hazardous substances) shall be stored in designated areas equipped with appropriate secondary containment and transferred to appropriate treatment sites.

For offshore operations, in order to prevent spills and to promptly react in case of spillage incident, the vessel shall have in place a shipboard oil pollution emergency plan (SOPEP) prepared and issued in accordance with MARPOL Regulation.

Specific drills dedicated to oil spill/pollution shall be conducted regularly.

Contractor shall have on-site anti-pollution spill kits in sufficient quantities and firefighting means and trained resources available to deploy them at all times.

Spills of chemicals in quantities deemed reportable under applicable legislation must be notified to the Employer immediately with a follow-up incident report.

On land, all tools and equipment used for the Work must be in good condition and do not present leaks of liquids, hydrocarbons or other polluting materials and meet the standards in terms of gas emission and noise levels.

All maintenance operations, fuel filling, storage or handling of pollutants, heavy machinery washing are carried out on a sealed area dedicated for this purpose. Pollutants or substance presenting a risk to the environment shall be stored on a sealed area away from ditches and wetland. The waters shall not be poured directly to the natural environment, and a device shall be used to ensure retention in case of pollution.

When an incident or situation likely to change the implementation of the Work has an effect on the marine environment, Contractor shall immediately cease operations if required, and take the necessary steps to limit the effects on the environment. Contractor shall immediately inform relevant authority and the Employer and shall communicate all measures taken to mitigate the impact and prevent this from happening again.

The measures prescribed by the maritime authorities shall be strictly followed to avoid any risk of collision between vessels and marine facilities.

8.4 Specific environmental requirements

8.4.1 Environmental administrative requirements

Contractor shall comply with the environmental requirements from the administrative authorizations linked to the Work and environmental requirements defined by EIA, EIA approval decision and/or

relevant Company Environmental Management plan and any others administrative authorizations received for the Project and the worksite.

Contractor must consider the dedicated document (to be provided at a later stage) aiming at identifying specific environmental requirements. It contains:

- Commitments made by the Employer;
- Local regulatory requirements;
- Potential contact persons; and
- Other environmental commitments negotiated with Contractor in the framework of the consultations in order to reduce the environmental footprint on the worksite.

The document provided by the Employer and Contractor's documents describing the specific environmental requirements must be available on the worksites.

The Employer informs Contractor that the application of the specific environmental requirements may be subject to inspections during execution of the Work.

Contractor shall:

- integrate consideration of specific environmental requirements in its Environmental Management Plan;
- conduct a review of requirements with the Employer before the start of the service;
- implement suitable measures to meet the requirements and describe such measures in the EMP for each environmental requirement;
- bring it to the attention of the staff on site, including subcontractors;
- in case of doubt, questioning of the commitments and requirements, contact the appropriate contacts listed in the EMP.

8.4.2 System specific environmental impacts

The Design of the each system shall consider the requirement to limit its environmental impact outlined indicated herein below:

In its technical qualification bid file, the Bidder shall identify the recyclable or improvable materials of its system. He shall especially provide sufficient information for these elements to be collected, processed, recycled, or improved in accordance with the national or international regulations in force.

Contractor shall provide all information in its possession, making possible to know or to evaluate the ecological quality of its system in its Project Environmental Management Plan.

The ecological quality of a product is defined by its aptitude to meet throughout its lifetime the following non-exhaustive criteria:

- Raw materials:
    - Reduction of the toxicity of the materials used for the environment and workforce;
    - Choice of materials allowing better recyclability of the product at the end of its life;
    - Taking into account the environmental performance of materials used (Life cycle analysis, Carbon footprint, etc.);
    - Optimisation of the quantity of materials used;

- Non-use of materials or components that require specialised treatment at the end of their life.

- Transport:
  - Local supply and sub-contracting;
  - Taking into account the origin of the raw materials of components;
  - Choice of more environmentally friendly modes of transport;
  - Optimisation of the logistical chain and the rate of refill of charging;
- Manufacture:
  - Optimisation of the use of resources (materials, energy, water, ...);
  - Choice of processes which use the least resources;
  - Choice of processes which generate little waste or excess;
  - Use of substances from renewable sources that do not pose a danger to the environment;
  - Recycling and/or processing of waste and substances after use;
- Packaging:
  - Choice of recycled materials;
  - Optimisation of the design of packaging and outer packaging;
  - Use of strong packaging;
- Use:
  - Improving the reliability and the duration of the product's lifespan;
  - Reduction of the product's weight;
- End of life:
  - Establishing a procedure for processing the product at the end of its life;
  - Improving the separability of materials;
  - Identification or creation of an organised collection procedure;
  - Innocuousness of the product if it is abandoned on site.

At each stage of the design and development of the product, Contractor will review the possibility of alternative solutions that would allow the product a reduced environmental impact without reducing its performance or competitiveness.

9. Occupational Health Management

The Contractor shall have a system in place for the identification and management of occupational health risk. This shall include occupational health screening and individual monitoring where required.

9.1 Medical Fitness for Work

Contractor shall make sure that all personnel working on worksite have a valid medical fitness to work.

For all aspects of the works, the Contractor shall assess if the scope requires a specific level of medical fitness.

For offshore working, the Contractor's personnel shall have a certificate of medical fitness appropriate to their role and activity. It shall be in compliance with the flag state of the vessel or a recognized equivalent from the country it is operating in.

The medical certificate shall be valid for 2 years and shall be delivered by an occupational health doctor. Contractor shall formally advise the Employer of any known medical disability or condition of any of its employees engaged in the Project which may adversely affect his/her own health and safety, or that of others.

Contractor shall ensure pre-employment (prior to mobilization) & periodic medical examination and Health Surveillance of the employees and Subcontractors are carried out.

9.2 Display Screen Equipment

If provided as part of the works, the Contractor shall ensure that any display screen equipment and workstations are assessed for the person using them.

9.3 Drug and alcohol policy

The Contractor shall implement ZERO tolerance policy for drugs and alcohol during working hours and in the premises of the Work as part of the Project HSE Plan. Where the Employer stipulates requirements to be met, the Project HSE Plan shall take account of these conditions.

Contractor shall enforce such policy and the code of conduct is put on the HSE notice board on all worksites.

Where the Contractor has a reasonable suspicion that any operative onsite is under the influence of alcohol or any illegal substance, they will be immediately denied access to the project until such times as the suspicion can be confirmed or rejected.

Employer retain the right to refuse access to the project site if they have a reasonable suspicion that any entrant is under the influence of alcohol or any illegal substance.

The Contractor shall furnish Employer with statistics regarding drugs and alcohol compliance. As a minimum, the Contractor shall monthly provide information with regards to the number of tests carried out, and the number of carried out tests which returned positive results.

The Contractor shall ensure that that the Policy contains the following as a minimum:

- Pre-employment testing;
- With cause testing; and
- Random sampling at each project site – this includes that 5% of the construction workforce are tested on a quarterly basis.

Where the Contractor is unable to demonstrate pre-employment testing of any individual, the Contractor shall ensure that each individual is tested prior to deployment onto the project.

9.4 Smoking policy

Smoking shall not be allowed on Site (including e-cigarette) except in designated smoking areas. These areas can be installed and organized at the discretion of Contractor at the condition they do not increase or create any new HSE risk.

9.5 Ergonomics

Ergonomics considers the nature of tasks to be undertaken, the equipment and information available to workers, and the working environment, in order to reduce the risks of injury, errors and inefficiency that may be caused by these factors.

The Contractor shall consider ergonomics in the design, planning, risk assessment and execution of the works.

9.6 Health Surveillance

Health surveillance is a system of ongoing health checks. These health checks may be required by law for employees who are exposed to asbestos, noise, vibration, ionising radiation, solvents, fumes, dusts, biological agents and other substances hazardous to health, or work in compressed air.

Health surveillance is important for:

- detecting ill-health effects at an early stage, so employers can introduce better controls to prevent them getting worse
- providing data to help employers evaluate health risks
- enabling employees to raise concerns about how work affects their health
- highlighting lapses in workplace control measures, therefore providing invaluable feedback to the risk assessment
- providing an opportunity to reinforce training and education of employees (e.g. on the impact of health effects and the use of protective equipment)

Health surveillance is a particular legal requirement and should not be confused with:

- activities to monitor health where the effects from work are strongly suspected but cannot be established
- workplace wellbeing checks, such as promoting healthy living
- fitness to work examinations e.g. fitness to dive, operate cranes, forklift trucks or health assessments requested by night employees

The Contractor shall provide details of the Health Surveillance programme that will be in place for the duration of the project. This information shall be provided as part of the Project HSE Plan.

9.7 Personnel exposure to lead

Lead is an ingredient in thousands of products widely used throughout industry, including lead-based paints, electrical fittings and conduits, tank lining, plumbing fixtures and many metal alloys. Although many uses of lead have been banned, lead-based paints continue to be used on bridges, railways, ships and other steel structures because of its rust and corrosion-inhibiting properties. Contractor shall consider operations that can generate lead dust and fumes as possible risky situations (non-exhaustive list):

- Operations causing dust emission from a painted surface or cables components,
- Joints and terminations fitting with cable lead screen,
- Implementation of some accessories which may contain lead,
- Heating operations [potentially steam origin].

Contractor shall minimize risk to lead exposure by using adequate engineering controls and work practices (including PPE) where feasible to reduce as much as possible personnel exposure.

9.8 Personnel exposure to noise

The two kinds of health effects of noise are non-auditory effects and auditory effects.

Non auditory effects include stress, related physiological and behavioural effects, and safety concerns.

Auditory effects include hearing impairment resulting from excessive noise exposure. Noise induced permanent hearing loss is the main concern related to occupational noise exposure.

The following standards are required to be followed based on the Applicable Laws and European Directive 2003/10/EC and Polish Norms.

The exposure limit values and exposure action values in respect of the daily noise exposure levels and peak sound pressure as per Polish law are fixed at:

- 8h/24h working time daily noise exposure level = 85 dB (A)
- Maximum sound level A = 115 dB (A).
- Peak sound level C = 135 dB (C).

Under no circumstances shall the exposure of the personnel exceed the exposure limit values (daily noise exposure level 85 dB and peak sound level 135 dB.

If, despite the measures taken, exposures above the exposure limit values are detected, the following shall be done:

- immediate action shall be taken to reduce the exposure to below the exposure limit values;
- the reasons why overexposure has occurred shall be identified;
- the protection and prevention measures shall be amended in order to avoid any recurrence.

If the risks arising from exposure to noise cannot be prevented by other means appropriate, properly fitting individual hearing protectors shall be made available to all personnel exposed and used by them.

Individual ear protection shall be available at all time for the Contractor and subcontractor personnel. It is the Contractor's responsibility to provide adequate PPE in sufficient quantity in case of noise exposure.

In case of doubt during the operations, a noise measurement campaign shall be organized by Contractor to be compliant with the regulation. Details of the measurements will be communicated to Employer upon request.

9.9 Personnel exposure to vibrations

If Contractor carries out work which is liable to expose any of his employees to risk from vibration shall make a suitable and sufficient assessment of the risk created by that work to the health and safety of those employees and the risk assessment shall identify the measures that need to be taken to meet the requirements of Applicable Laws and European directive 2002/44/CE and Polish Norms.

9.10 Welfare

In the execution of the scope, the Contractor shall educate all personnel (including subcontractors) to notify their front-line supervisor of any concerns about any potential impairment of their fitness for work.

The Contractor shall pay attention to:

- Include Fatigue management as part of the HSE policy;
- Identify work areas/tasks that expose workers to unduly hot or cold conditions;
- Take measures for heat stress and dehydration by providing an adequate supply of drinking water and
- provision of regular breaks;
- Consider mental health and stress as part of the occupational hazards;
- Avoid Work Alone situation outdoor;
- Raise awareness on fatigue hazards in relation to activities at night. In that case, the risks shall be reassessed.

9.11 AED

The Contractor shall make sure that in all premises of the Work including on board survey, anchor handling /towing tug, CTV and installation vessels / barges (chartered or not) at least one Automated External Defibrillator is available and that a sufficient number of personnel on board is regularly trained for its use.

Evidence of training records shall be shared with the Employer representative upon request.

9.12 First Aid Kits

Contractor shall provide first aid kits, safety showers and eye wash stations where necessary on all worksites. He shall make sure that they are properly maintained and periodically inspected at all time. The content of the First Aid Boxes shall be as per Applicable Laws and aligned with risks associated with the Scope of Work.

9.13 Human Factors

Human Factors is the term used to describe the interaction of individuals with each other, with facilities and equipment and with management systems. The Contractor shall consider the impact of Human Factors in all aspects of the works.

10. Security Arrangements

The Contractor shall ensure that security is effectively managed on the Sites as appropriate to the works.

The scope of security covers people assets, sites, and information.

10.1 People

The Contractor shall have a system in place to ensure the security of personnel and where appropriate this shall also include those not directly involved in the work e.g. public, children etc.

10.2 Assets

The Contractor shall ensure that all site offices, storage areas and other structures on site are adequately secured when not in use to prevent unauthorised use or theft.

10.3 Sites

The Contractor is responsible for ensuring, as far as is reasonably practicable, that the site can be secured to control movements in and out of site and to prevent unauthorised entry. A system shall be in place to record personnel entering and leaving the Site.

10.4 Knowledge

It is the Contractor's responsibility to ensure that all confidential information relevant to the works is stored securely when not in use. This includes electronic and hard copies of the information.

10.5 Cyber security

Cyber incidents can result in several different consequences, depending on the nature of the computer systems targeted, and intention of the perpetrators. Circumstances in which the possible consequences of cyber incidents are extremely serious or even, perhaps, catastrophic generally require very robust levels of cyber security and resilience.

Employer takes cyber security very seriously and requires that the Contractor takes robust measures to protect both its own systems, and that of Employer where access to document control functions is granted for control of records purposes etc.

The Contractor's network(s), tools and works provided to the Employer shall:

- Be designed with security measures, segregation, and availability to reflect the Employer's requirements;
- Have measures to protect itself from unauthorised access from external systems;
- Have measures that enables secure remote operation according to work process requirements;
- Have measures for disaster recovery;
- Operate safely also if communication to external systems fails;
- Be documented and maintained in a manner that reflects the requirements of the connected systems;
- Adhere to corporate Information and Communications Technology component and/or solution standardisation to the extent that suppliers of connected systems can accept.

11. Supplying

11.1 Supply of Chemicals

The Contractor, if involved in the manufacture or supply of chemicals for use on the project, shall ensure that it complies with all relevant international and national legal requirements.

The Contractor shall provide and maintain an up to date register of substances hazardous to health and maintain a database of corresponding Material Safety Data Sheets/Safety Data Sheets for each substance.

The Contractor shall obtain all permits required Applicable Laws for all Contractor substances and chemicals used in offshore operations. The Contractor is solely responsible to implement all requirements and recommendations of Baltic Marine Environment Protection Commission – Helsinki Commission (HELCOM) in regards to use in offshore Works the Contractor substances and chemicals and to follow and apply the OSPAR Convection Harmonised Mandatory Control System (HMCS) for use and reduction of discharges of offshore chemicals.

11.2 Supply of Machinery

The Contractor, if involved in the either the manufacture or supply of machinery, shall ensure that it is complies with international and national legislation and standards and that all machinery is designed and constructed so it can be used safely.

Manufacturers should carry out a detailed risk assessment by:

- identifying the health and safety hazards (trapping, crushing, electrical shock, dust or fumes, noise, vibration, etc) that are likely to be present when the machinery is used. The essential health and safety requirements for provision and use of work equipment as per Applicable Laws and Polish Norms, should be used by manufacturers as a guide to ensure all possible hazards have been considered, and that they have identified those relevant to the machine, assessing the likely level of risks involved;
- eliminate significant risks or, if that is not possible;
- provide safeguards (e.g. guarding dangerous parts of the machinery, providing noise enclosures, etc) or, if that is not possible;
- provide information about any residual risks and place signs on the machinery to warn of risks that cannot be reduced in other ways (e.g. ‘noisy machine’ signs).

The Contractor, if supplying machinery, shall ensure that any designated representatives of Employer are given adequate training, in line with the instruction manual as per Applicable Laws, to allow for safe operation and maintenance.

11.3 Supply of Products and Equipment

Work equipment must be suitable for the purpose for which it is used or provided and used only for operations for which it is suitable. In selecting work equipment, the Contractor shall take account of:

- the working conditions and risk to health and safety from the premises it will be used in
- who will use the equipment

- the work equipment itself

New work equipment shall conform to any legislative health and safety requirements applicable, at the time of supply, to it through Polish product supply law.

Most new work equipment should comply with common minimum safety requirements but, before putting it into use, the Contractor will ensure and confirm to Employer:

- that the equipment is not obviously unsafe, comes with all features necessary for safety (e.g. guarding for machinery) and is suitable for the purpose to which it is to be used or provided
- that it comes with user instructions, which should be in Polish
- if machinery, that information on noise and vibration emissions is provided
- that it is CE marked and accompanied by a Declaration of Conformity, unless these are not required because:
    - no European Product Supply Directive applies (mainly non-powered access equipment and non-powered hand-held tools)
    - it is partly completed machinery, in which case it should come with a Declaration of Incorporation but no CE mark
    - it is electrical equipment, which does not need to be accompanied by the Declaration of Conformity, but must still be CE marked

Work equipment supplied shall be:

- suitable for its intended purpose
- selected so that the risks to the health and safety of users can be managed
- used only for the operations for which it is suitable

12. Statutory Inspections and Thorough Examinations

The purpose of an inspection is to identify whether work equipment can be operated, adjusted and maintained safely, with any deterioration detected and remedied before it results in a health and safety risk.

Contractor shall comply with Applicable Laws and relevant specified circumstances where inspection is required to ensure healthy and safe conditions are maintained:

- where the safety of work equipment depends on the installation conditions, it should be inspected after installation and before first use, and after reassembly at any new site / location;
- at suitable intervals, where work equipment is exposed to conditions causing deterioration liable to result in dangerous situations;
- each time exceptional circumstances (e.g. major modifications, known or suspected serious damage, substantial change in the nature of use) are liable to have jeopardised the safety of the work equipment.

The Contractor shall ensure that all safety critical items / safety and environmental critical elements (SECEs) within supplied machinery, products and equipment are inspected and/or thoroughly examined, as close as possible to the handover to the Employer. Certification for all items examined shall be passed to the Employer for inclusion in the HSE File.

In addition to the above, the Contractor shall provide a Written Scheme of Examination for safety critical items / safety and environmental critical elements (SECEs) such as pressure systems where deemed necessary.

All equipment and items of plant shall be subject to periodic or thorough examinations and accompanied by the relevant evidence of certification. The examinations carried out shall satisfy the requirements of Applicable Laws and relevant legislation as identified by the Contractor.

13. Certification and Verification

The Employer certification & verification strategy will set out the key design verification and certification activities that will be undertaken by the Project. In addition to the independent review of design, Employer and its Contractor(s) shall ensure that appropriate design, manufacture and installation verification activities are implemented as part of a structured quality assurance scheme in line with good industry practice and relevant standards. This scheme shall incorporate any specific requirements as indicated through the formal design Verification process.

The Contractor will make available, evidence of certification and/or verification of all designs for the machinery or equipment provided to the Employer.

The Contractor shall ensure that validation or verification bodies, engaged by them, are assessed as compliant with ISO/IEC 17029:2019, Conformity assessment – General principles and requirements for validation and verification bodies. This standard contains general principles and requirements for the impartial, competent and consistent provision of validation and verification activities by the assessment bodies performing them.

13.1 Declaration of Conformity

A Declaration of Conformity (DoC) is a formal written statement by the manufacturer or their authorised representative, stating that the product meets all relevant product supply legislation applicable to the product (occasionally there may be several DoCs, one for each regulation, although normally they should be combined into one document).

14. General Site Requirements

The following sections present the Employer's expectations of the Contractor on a range of site related hazards and issues.

14.1 Access/Egress to site

The Contractor shall provide and maintain safe horizontal and vertical access to and egress from work areas using either a proprietary industry solution or a bespoke system. In both cases, the solution used will conform to all relevant standards.

Where the provision and maintenance of access routes are under the control of another party, the Contractor shall co-operate and prevent the use of unauthorised routes by project staff.

The Contractor shall provide and maintain suitable, sufficient and secure physical barriers to exclude unauthorised personnel from construction work sites. Hazard warning tape and signage may be used to supplement but not replace physical barriers.

Where Employer holds the role of Consortium Leader or Principal Contractor, the Contractor shall agree the system with the Employer Site Manager prior to the system being deployed.

The Contractor shall be able to demonstrate that a suitable and sufficient Temporary Works design assessment has been carried out on any type of fencing securing or delineating the construction works area, including any access and egress to the area.

All openings in work areas, floors, roofs and walkways shall be covered with purpose made solid covers of timber or steel which shall be bolted in place as soon as the opening has been formed. The covers shall be capable of supporting traffic (pedestrian / plant etc.), shall be assessed for the safe working load (SWL) and carry a warning sign, including SWL. Where it is impractical to cover an opening, the perimeter shall be protected by a handrail and kick plate which shall be bolted or fixed in place.

Manholes in the course of construction shall be treated as openings in floors and protected as detailed above. Where it is necessary to remove the covers of completed manholes a purpose made barrier shall be erected around the manhole and a warning sign fixed to the barrier.

14.2 First Aid and Medical Emergency Response Plan

The Contractor shall put in place suitable arrangements, in order to minimise the severity of the effects on a person who is ill or injured; these arrangements aim to:

- Preserve life, by the application of first aid techniques;
- Prevent further harm, by taking steps to reduce the risk of the condition worsening; and
- Promote recovery, by enabling the start of the recovery process from the illness or injury.

The Contractor shall provide the Employer with the First Aid Risk Assessment, (which shall detail the level of first aid training for personnel), at least 8 weeks prior to commencement of Works.

14.3 Housekeeping

High standards of housekeeping are to be maintained at all times. All debris, scrap or surplus materials shall be removed from the workplace on a daily basis or sooner where required.

14.4 Personal Protective Equipment

The Contractor is responsible for providing, maintaining and replacing all the personal protective equipment (PPE) used by its workers.

All items of PPE shall be manufactured and tested to the current relevant standards and carry the appropriate CE Marking.

The appropriate PPE for any activity shall be determined through risk assessment and site rules.

The Contractor shall ensure that the supplied PPE is suitable for use of all personnel and if respiratory protective equipment is being used then the appropriate face fit testing has been carried out.

Minimum PPE requirements for onshore sites are as follows:

- Full leg coverings are required at all times;
- Upper body garment sleeves shall be full length;
- Head protection - a safety helmet manufactured in accordance with EN 397. The helmet shall be clearly marked with the name of the person to whom the helmet has been issued. The Supervisor in the crew will be identified by wearing a different coloured hard hat from the Operatives with their name affixed. The colour to be used should be as per Applicable Laws and documented in the Project HSE Plan and agreed by Employer.
- Eye protection manufactured in accordance with EN 166, 167 & 168 with fixed side shields. The wearing of safety spectacles is mandatory.
- Foot protection with ankle support, steel/composite toecaps and protective midsoles manufactured in accordance with EN 345 & 346. Rigger boots are not permitted to be worn.
- Hi visibility clothing - minimum standard, worn as outer clothing on the upper body. The Contractor shall ensure that such work wear has prominent hi visibility elements (belt & braces reflective bands or equivalents) and the name of, or distinctive mark of the Contractor on the rear.
- Hand protection- industrial gloves specific to the hazards anticipated by risk assessment and works planning to be encountered by the employee.

Flame retardant coveralls are ONLY required where operatives are carrying out the following activities:

- Working on LV electricity cables, e.g. fusing, linking, jointing, fault finding and work at the cable terminations;
- Carrying out “outage free work” i.e. rubber glove, long or short stick;
- Working on the LV or HV overhead network;
- Carrying out direct switching operations including the application and removal of earths;
- Working or testing on or adjacent to open LV busbars or connections;
- Work involves the use of a naked flame;
- Excavating for cables; or

- Where the MSRA states the requirement to wear them due to there being a risk of flame, excessive heat or electric arc that could cause injury.
- Waterproof protective clothing manufactured in accordance with applicable Polish Norms.
- Hand protection- industrial gloves specific to the hazards anticipated by risk assessment and works planning to be encountered by the employee.

It should be noted that additional requirements for flame retardant coveralls may be imposed by the Consortium Leader or Principal Contractor as deemed necessary.

For onboard vessels, all personnel shall follow the vessel's basic requirements and any further instructions included in the risk assessments and method statements.

All PPE purchased and issued by the Contractor must meet requirements as stipulated by relevant Polish and European Standards and carry the relevant CE marking. When purchasing PPE, certification conforming to statutory requirements or other documentation should be requested from the manufacturer/supplier. PPE which has no CE or EN marking must not be used and is to be removed from the site.

PPE must be maintained in an efficient state, in good working order and in a suitable state of repair. Persons in control of PPE shall inspect prior to use to ensure that there is no damage and that it is fully functional. Fall protection equipment and life jackets used within the Poland will be inspected and certified every 6 months by a recognised competent person. All life jackets must be compliant with SOLAS convention, requirements and marked as such. Records of any inspections will be entered into the PPE register which will be held on site.

PPE that is damaged and cannot be repaired is to be either destroyed immediately or quarantined prior to disposal. PPE for repair must be marked as such and taken out of use.

Subcontractors under the Contractor's control will fall in line with the same standards and requirements.

14.5 Smoking

The Contractor shall have a smoking policy in place for the Sites under its control.

14.6 Visitors

The Contractor shall ensure that all visitors to Sites under its control receive an induction and are looked after by a named individual for the duration of their visit.

14.7 Welfare Facilities

The Contractor shall ensure that on the Sites under its control, suitable and sufficient welfare facilities are available and maintained in a reasonable condition for the duration of the works.

The minimum requirements for welfare facilities on site shall be in line with Applicable Laws and include, but not limited to:

- Provision of toilets;

- A supply of hot and cold (or warm) water for washing;
- Changing facilities;
- Drinking water; and
- An area to eat and rest.

These requirements should be available at all work areas as far as is reasonably practicable.

For offshore assets, it is anticipated that the supporting CTV(s) or Walk to Work vessel(s) will provide these welfare requirements.

15. Permit To Work (PTW)

In the areas under its responsibility, it is Contractor's responsibility to ensure that a permit to work system is enforced for activities with specific HSE risks and particularly for offshore activities. These activities include, but not limited to:

- Lifting operations;
- Hot works;
- Confined space works;
- Electrical risks (high energy, lockout/tagout, grounding, etc…);
- Ground disturbance (Excavation, trenching, etc…).

Contractor shall ensure that its permitting process complies with any and all applicable legislated requirements.

Personnel involved in the permit to work system must be trained in the permitting process and must follow the permit requirements for isolation, application of locks, testing of isolation, air monitoring, rescue requirements, fire prevention requirements, etc.

If during the work, conditions or procedures vary from the permit outline (Change in designed method statement, change in conditions, etc.), Contractor shall stop work, assess the new conditions and review/modify the permit accordingly.

16. Arrangements for controlling significant risks and impacts

16.1 Asbestos

The Contractor shall have a procedure for the management of Asbestos (if identified as a potential risk on the works).

It shall support the identification of Asbestos found in building materials, void spaces, ground and made ground (man-made soil mixture including debris and other materials).

It shall ensure that any insulation or material that is suspected to contain asbestos, but has not been identified as such, should be classed as asbestos until identification has been confirmed by laboratory analysis.

The Contractor shall review Asbestos information and ensure that residual risk information is provided as part of the OHS File.

The Contractor shall ensure that where required a valid Asbestos License is in place, prior to commencement of works.

Where the presence of Asbestos has been identified, the Contractor shall identify if a specialist contractor is required for management / removal of Asbestos Containing Materials.

Following safe removal and disposal, the Contractor shall comply with legal requirements and follow local legal requirements and notification procedure.

16.2 Biological Hazards

The Contractor may undertake activities that expose workers to biological hazards such as leptospirosis (Weil's disease), e-coli, and legionella. Some of these hazards may be found adjacent to watercourses, on agricultural land or on contaminated ground, others may be found in water supplies and cooling systems.

When working in areas that may contain biological hazards the Contractor shall undertake a risk assessment to identify the extent of the hazard and the proposed control measures.

Prior to work beginning on site the Contractor shall provide information to all workers involved in the activity on the hazards present and the control measures to be implemented as well as ensuring that there are appropriate facilities for hygiene available.

16.3 Biosecurity onshore

Biosecurity is important when any land is entered where there is a risk of spreading pest or disease. This includes all agricultural land (including grassland, arable land, horticultural units), hill ground and moorland that carries stock, farm steadings, forestry and woodland, rivers and lakes and aquaculture units.

Additionally, there are several zoonoses (diseases capable of being transmitted from animals to humans) that may be of risk to humans including, for example Lyme Disease, Leptospirosis, E. coli O157 and Salmonella. Good hygiene practice would significantly reduce the risk of contracting or spreading a zoonosis.

The risk of spreading pests or disease between different locations is influenced by:

- The type of premises;
- The proximity to livestock, crops, woodland, water bodies or areas where livestock have access and;
- The presence of current pests and diseases or restrictions applied to land or premises.

The Contractor shall comply with the Polish legal requirements on Invasive Non-Native Species. The Contractor shall have a comprehensively defined plan and assessment of impacts against INNS included in Contractors Environmental Management plan which will be reviewed by Employer prior to commencement of works.

16.4 Confined Spaces

The Contractor shall have a Confined Space Working Procedure that meets the requirements of the Confined Spaces of Applicable law and HSE legal requirements.

Prior to Works commencing and potentially in the design phase, the Contractor and the Employer shall agree a definition of Confined Space that shall apply to the works.

In all instances requiring entry into confined spaces the Contractor shall have an adequate risk assessment and robust management arrangements for controlling access and adequate emergency arrangements in place prior to the work starting.

The Contractor shall ensure that all personnel entering confined spaces must have had appropriate training for the type of confined space being entered, the expected hazards and emergency arrangements.

16.5 Control of Hazardous Substances

The Contractor shall have a Control of Substances Hazardous to Health (COSHH) Procedure that ensures that the use of all chemicals is risk assessed and complies with any local permits/consents/licenses.

The Contractor shall provide and maintain a register identifying all dangerous and / or hazardous substances and materials to be used in the performance of the works. The initial substance register shall form part of the Project HSE Plan submitted to the Employer. Thereafter, the Contractor shall update this: prior to construction phase, monthly, and where any change occurs.

The Contractor shall obtain approval (via the MSRA process) from Employer prior to conducting any activity that may involve dangerous and / or hazardous substances and materials.

COSHH Assessments shall be provided for each substance / material listed on the substance register as part of each MSRA submittal. In all cases, COSHH Assessments shall be specific to the activity and not generic to the product.

The Contractor shall provide details of the health surveillance programme that will be in place for the duration of the project. This information shall be provided as part of the Project HSE Plan.

For purposes of this document, hazardous materials include:

- Any substance or mixture of substances that is toxic, corrosive, an irritant, a strong sensitizer, pyrophoric, flammable, ignitable, combustible, radioactive, explosive, reactive, and/or that generates pressure through decomposition, heat, or other means;
- Any substance or mixture of substances that may cause personal injury or illness during, or as a proximate result of, any customary or reasonably foreseeable handling or use; or
- Any substance or mixture of substances that is regulated as hazardous under European Transportation regulations, international transportation regulations developed based on United Nation recommendations, or under any other applicable HSE Laws including, but not limited to, dangerous goods, hazardous substances, toxic substances, hazardous wastes, carcinogens, reproductive toxins and the like.

16.5.1 Chemical hazards

Contractor shall ensure that all hazardous substances which are brought onto the worksite as part of the project are stored, used and handled in accordance with the manufacturer's recommendations and the relevant Material Safety Data Sheet. Those MSDS shall be available on the worksite.

16.6 Dangerous Goods

The Contractor shall have, if transporting items classed under the Dangerous Goods Regulations as Dangerous Goods to the Sites, arrangements in place to comply with the Applicable Law requirements.

16.7 Dangerous Substances and Explosive Atmospheres

Where storage of gases is shared, all cylinders shall be fitted with a weatherproof label naming who owns and/or is responsible for it.

Where storing fuel oil, petrol or any other combustible liquids the Contractor shall make all necessary arrangements to isolate such storage from any source of ignition or impact and provide containment and clean up facilities in the event of any spillage.

The Contractor shall ensure outdoor separated secure storage for each flammable and oxidising gas with suitable identification and safety signage. Storage of mixed fuel and oxygen gases shall not be permitted. Minimum separated storage distance will be 3m in all cases. The Contractor shall identify in the Project HSE Plan, the actual distances required depending on the amount of or quantities of flammables and oxidising gases onsite.

Consideration shall also need to be given to the environment in which they are being stored i.e. near any vulnerable population, buildings, etc.

Combustible fuels may only be stored in, and dispensed from, UN approved containers. Storage areas will be kept a minimum of 1m away from a property boundary.

16.8 Deliveries and Removals

The Contractor shall develop arrangements to ensure the safe delivery and removal of equipment and materials from site.

The plans should identify routes in and out of site, storage and laydown areas. As far as is possible storage and laydown areas should be segregated from transport routes.

Whenever possible appropriate laydown areas should be available close to where the material is to be used to minimise the number of loading and unloading operations required.

16.9 Demolition and dismantling

All demolition, dismantling and structural alteration must be carefully planned and carried out in a way that prevents danger by practitioners with the relevant skills, knowledge and experience.

A systematic approach to demolition projects is a team effort between many people, who all have responsibilities:

- Employing organisations must appoint duty holders who have the relevant skills, knowledge and experience and where organisations, the organisational capability, and are adequately resourced.
- Employing organisations, with the help of the principal designer must provide those who need it (e.g., designers, contractors) with pre-construction information that can reasonably be obtained. A range of surveys and reports will be needed - for example, to check for presence of asbestos; structural stability of site and nearby structures; the location of above and below ground live services in the work area; etc. These should be done before work begins and not be left for the principal contractor to organise once the demolition work has started.
- Principal designers must plan, manage, monitor and coordinate health and safety issues in the pre-construction phase (i.e. before demolition starts) to give principal contractors as much information as possible to allow the principal contractor to keep people (site workers and the public) as far as possible from the risks.
- Principal contractors must plan, manage, monitor and coordinate health and safety issues during the demolition work.
- Site managers must ensure workers are supervised and are following safe working practice.
- Sub-contractors and site workers must follow the instructions and plans given to them by those in charge of the work and ensure that their colleagues do too.

The Contactor shall provide any residual risk information which will form part of the project OHS File.

Where the Contractor appoints a specialist demolition contractor, then the Contractor shall ensure that subcontractor's competence and provide evidence to Employer for review.

Employer reserves the right to review the competency of the appointed specialist demolition contractor at any time.

16.10 Electrical Safety

The works may involve a wide range of electrical systems, including:

- HV systems for power collection and export, such as transformers and switchgear within individual devices, offshore substations, and cabling within the array and for export;
- LV systems in generators and for ancillary functions within devices;
- Temporary installations, such as the use of generators during commissioning and major maintenance; and
- Portable equipment used by technicians.

All personnel working on or adjacent to live electrical systems will be suitably qualified and evidence of competence will be required prior to works commencing. This includes non-electrical work such as building work near to overhead lines or underground cables as well as electrical work activities, when there is a risk of electrical danger.

The Contractor shall comply with the requirements of EN 50110-1 - Operation of Electrical Installations, Safety rules and guidelines for avoiding danger from underground services and avoiding danger from overhead power lines and any other pertinent regulations, standards or guidance available through accreditation, industry, trade and/or enforcement agency bodies.

The Contractor shall also comply with any project specific electrical rules or permit system in place for the sites on which the works take place. Where the Contractor is supplying, installing and commissioning LV plant and apparatus, it is envisaged that their safe systems of work will take precedence, (where practical), or be managed in coordination with the Employer's site representative and other work parties as necessary. In cases where the Contractor has a formal system of appointment under their respective safe systems of work, all other parties will be required to undertake any training or authorisation process to ensure Safety from the System is maintained.

HV Safety Rules will be implemented and maintained by the Employer, the Contractor shall comply with the requirements of these rules when working on, in the vicinity of or adjacent to, live, (or potentially live), HV plant, apparatus or other live parts of the HV system.

When commissioning activities are taking place, the Contractor shall ensure that wiring diagrams and commissioning/switching plans are to be provided as part of method statement submittals place.

The Contractor shall ensure that where they provide cabins / welfare / site accommodation etc, that all temporary electrical supplies are subject to an inspection on initial commissioning and quarterly thereafter.

The Contractor shall ensure that all trailing electrical leads and hoses are suspended off the floor where possible and are maintained in order to minimise tripping hazards.

All electrical installations must comply with the Applicable law regulations. Equipment and tools used by the Contractor shall be fit for purpose, CE marked where applicable and maintained in line with pertinent regulation. External enclosures, such as sockets, etc. shall be to a minimum ingress protection standard of sufficient IP rating and shall be selected to be demonstrably suitable for the environmental conditions that the equipment is to be installed in.

If the Contractor proposes to use tools requiring a supply voltage in excess of 240 volts AC, they shall seek to justify this need with the Employer prior to commencement of the Works.

Where a supply of 240 volts AC is confirmed as necessary, the Contractor shall ensure that the circuit includes a residual current device (RCD) appropriate to the hazard. The RCD shall be tested by a competent person before being brought into use on this site and at intervals not exceeding one month and a label attached to the RCD indicating the date of test and the name of the person who has conducted the test.

Where a supply of 240 volts AC is used the cable shall have a protective covering containing all the conductors including an earth, where applicable.

16.11 Excavations

No excavations or breaking of ground may take place without a risk assessment. Any excavations will have to take account of any archaeological or contaminated land constraints identified in the project consents documentation.

The Contractor shall notify to Employer its Competent Person(s) for excavations. This shall also be required to be identified on the Contractor's project organogram. Employer reserves the right to review the competency of the Competent Person at any time.

The Contractor shall propose a minimum of four weeks prior to start of their Works, and thereafter when reviewed, proposals for method of benching, battering, shoring or otherwise stabilising excavations as part of Temporary Works design.

Excavation edges shall be protected with an approved excavation support system or substantial barriers to prevent people and materials from falling. This shall include toe boards or other such means, such as projecting trench sheets or box sides, guard rails inserted into the ground immediately next to the supported excavation side, fabricated guard rail assemblies that connect to the sides of the trench box or the support system itself e.g. using trench box extensions or trench sheets longer than the trench depth.

Where the Contractor deems that trench support is not required, the risk assessment to support such a claim shall be submitted to the Employer representative for review and thereafter be updated accordingly with any change. The Contractor must take the ground conditions into account when determining the appropriate measures.

The Contractor shall provide to Employer an up-to-date Excavation Register. This shall be provided upon the identification of the first excavation, and thereafter with each change.

The Contractor is responsible for the management of water from whatever source.

Where excavations are carried out near buried services the Contractor should not rely on the available service drawings but shall use the appropriate detection equipment to confirm the presence of services and follow safe digging practice.

16.12 Fire

The Contractor shall include fire as part of any risk assessment. Fire Risk Assessments shall be carried out by suitably qualified and competent persons.

16.13 Ground Conditions

It is the Contractor's responsibility to ensure that any plant or equipment that is proposed for the planned activities is suitable for the existing ground conditions.

16.14 Hoisting and rigging

Contractor shall ensure that all aspects of hoisting and rigging comply with the applicable legislation in the jurisdiction in which the work is being performed. Only competent workers, designated by Contractor may operate hoists, act as signal men or perform rigging. All rigging certificates must be available on board for inspection upon Employer's request. The operator of the lifting device must have access to sufficient load charts and be made aware of the load weight to perform the lift safely. Log books for cranes and hoists must be maintained as required.

Approved rigging must be of sufficient strength, inspected thoroughly at the beginning of each shift and used in a safe manner. Tag lines must be used where required to control the load to prevent undesired movement, unless the use of tag lines create a greater hazard. At no time will loads be suspended over personnel, or travel over personnel or products. All rigging, manual lifting devices (chain falls etc.) and powered lifting devices must be maintained, inspected and used in accordance with the manufacturer's instructions and the relevant legislative requirements.

16.15 Hot Works

The Contractor shall detail in the Project HSE Plan, its Permit to Work requirements and related control measures for hot works.

16.16 Ionising Radiation

Industrial radiography usually involves using intense radiation sources which can expose people at work to significant amounts of radiation. Over the years several serious incidents have been caused by the failure to maintain equipment, to carry out routine monitoring or to employ proper emergency procedures.

Before they start any new work activities, radiography contractors must make sure that their risk assessments are sufficient to cover the radiation protection aspects of that work as per Applicable Law requirements. They also must consider the possibility of a radiation accident occurring and take reasonable steps to prevent this or to mitigate its consequences by drawing up emergency procedures and appointing a responsible person for administering them.

For engineering construction and maintenance work, the Employer and Consortium Leader or Principal contractor will have explicit duties for the management of the entire project. Where the project includes radiographic inspection of plant, they should develop safe procedures, with the co-operation of the NDT contractor, at the planning stage.

The Contractor shall provide details of the Health Surveillance programme that will be in place for the duration of the project. This information shall be provided as part of the Project HSE Plan.

16.17 Ladders

Where the Contractor proposes to use ladders for any purpose, this shall be detailed within MSRA and the use of ladders for the activity shall be in line with Applicable Laws and Health and Safety regulations.

The Contractor shall demonstrate that the proposed ladder is suitable for its intended use.

The Contractor shall comply with HSE guidance with regards to appropriate ladder use on sites. The Contractor shall utilise the Ladder tag system for all ladders and shall ensure that when ladders are not in use, that they are locked to prevent inadvertent use.

The Contractor shall demonstrate that the proposed ladder is suitable for its intended use.

The Contractor shall comply with HSE guidance with regards to appropriate ladder use on sites. The Contractor shall utilise the Ladder tag system for all ladders and shall ensure that when ladders are not in use, that they are locked to prevent inadvertent use.

16.18 Lifting Operations - Control

The Contractor shall ensure that all lifting operations it undertakes as part of the works are carried out following the relevant legislation, and for offshore lifting are consistent with the **IMCA Guidelines for Lifting Operations**.

The Contractor shall ensure that all lifting operations involving lifting equipment must:

- have a responsible person for the lifting activity;
- be properly planned by a competent person;
- appropriately and actively supervised; and
- carried out in a safe manner.

In planning any lifting operation, the identification and assessment of risk is key to identifying the most appropriate equipment and method for the job.
Lifting operations range from: the very simple and commonplace, where minimal on-the-job planning by trained, competent people may be all that is needed to manage risk; to very complex operations, which require sophisticated and detailed planning / records, with very high levels of expert input, monitoring and supervision - undertaken by specially trained personnel. The complexity of the plan and the extent of the resources used to manage risk must reflect the complexity and difficulty of the lifting operation.

Lifting equipment must be thoroughly examined in a number of situations, including:

- before first use (unless there is a valid Declaration of Conformity made less than 12 months earlier);
- where it depends on installation, or re-installation / assembly at another site; and
- where it is exposed to conditions causing deterioration, liable to result in danger.

The Contractor shall prepare a lifting schedule for the works, which clarifies the routine, non-routine and non-routine engineered lifts that will take place. This schedule shall be submitted to the Employer for review a minimum of one month prior to works starting.

The Contractor shall inform systematically in advance the Employer about upcoming non-routine heavy lifting operations. A non-routine lift is a lift which conforms to the following factors:

- Use of two or more lifting appliances, including tallying pipe using winch and crane (tandem lift);
- With sensitive, difficult or restricted areas;
- Lifts from one offshore vessel to another;
- Continuation of a lifting operation with different people;
- Lifting of machinery without lifting points;
- In environmental conditions likely to affect equipment performance;
- Load with unknown / difficult to estimate weight and/or centre of gravity;
- Non-standard rigging arrangements;
- Load lowered into or lifted from a confined space;
- Weight of load in excess of 75% rated load of the load chart;
- Lifting of a man basket.

The lifting plans for all non-routine lifts shall be submitted to the Employer for review a minimum of two months prior to works starting.

16.19 Lifting Operations/Lifting Equipment

The Contractor shall plan all lifting operations and submit to Employer Representative a lifting plan with the MSRA in line with Applicable Law and OHS legal requirements and Industrial Best Practice for safe use of cranes.

The Contractor shall note that where a telehandler is used for lifting activities, i.e. when the forks are either replaced with an attachment, or an attachment is placed on them, the requirements of this section are to be complied with.

The Contractor shall maintain a Lifting Schedule for the duration of the contract. This shall be submitted to Employer 8 weeks prior to any lifting taking place and shall thereafter be submitted monthly, or where any change occurs.

The Contractor shall ensure that a lifting plan is created for each lifting activity and submitted to Employer as part of MSRA submittal prior to undertaking any lifting operation. The lift plan shall be specific to the lifting operations described in the scope of works and is not, and shall never be, considered generic. Where, multiple lifts of a similar nature are conducted, a generic lifting plan can be prepared for the series of lifts.

Contractor shall prepare method statement and risk assessment including detailed lifting plans presenting the full geometry of the lift having reasonable tolerances regarding distances to foreign obstacles, such as other vessels / jack-ups, other works occurring in the surroundings, use of accurate lifting diagrams/drawings, include the correct lift weights, the correct position of the Center of Gravity and apply the relevant Dynamic Amplification Factor (DAF) and in addition, include a contingency plan to cater for unpredictable circumstances.

Moreover, the use of screw pin shackles is prohibited while performing subsea lifting operations due to potential high risk of dropped object (increase of vibrations while subsea leading to a potential unexpected pin release). Bolt type shackles with safety pin shall be preferred.

More generally, lifting method statement as well as lifting equipment design shall be compliant with recognized international standards relevant for the “marine operations”.

The Contractor shall ensure that Lift Plans are created by the Appointed Person. The Appointed Person shall either be present on site or shall have visited site as part of the development of the Lift Plan.

The Contractor shall submit details to Employer of the Appointed Persons for lifting operations, any appointed Lift Supervisors and the Competent Person who will carry out examinations at the specified periods. Employer reserves the right to refuse any nomination where the competency of the Appointed Person cannot be fully demonstrated.

Where any Appointed Person duty is designated to another person, the Contractor shall detail in the lift plan the arrangements for the appointed persons duties to be carried out.

The Contractor shall demonstrate in the lifting plan the selection criteria for the equipment used to lift. Selection criteria should be demonstrable to the principles of prevention.

The lifting plan shall be signed by the Contractor's Site Manager, Appointed Person, Lift Supervisor, Crane Operator, Slinger / Signaller prior to submittal to Employer Representative for acceptance.

All lifting operations will be managed and supervised by qualified, competent and experienced personnel on the worksite for the Contractor, who is responsible for the planning and the execution of the lifting operations.

For the operations under its responsibility, Contractor shall ensure that cranes and lifting equipment are certified and validated by third party which is required before mobilization on vessel/workplace.

Contractor must ensure that they are maintained inspected and tagged "fit for purpose" and operated in accordance with legislative requirements. Records of inspections and tests will be made available to the Employer and be included within the method statement/lifting plan.

The Contractor shall ensure that cranes are fitted with a fixed calibrated anemometer. All other lifting equipment shall have a calibrated anemometer available and shall be used during the lift.

All lifting accessories shall bear a distinctive mark which will enable them to be immediately identified against the test certificate. All items shall be marked with their safe working load and colour code shall be applied.

All damaged lifting equipment must be ceased or destroyed. Self-repair of lifting gears are not authorized.

The Contractor can propose to use specific colour code system / procedures to tag lifting equipment and accessories where the following conditions exist: short term duration work, provided by a supplier and / or they are the only Contractor onsite at the time of the activity being carried out. Any agreements to vary this requirement will be clearly documented in the Project HSE Plan by the Contractor. The Employer Package Manager, in consultation with the Employer Safety Advisor shall give written acceptance.

Contractor shall ensure that the area of the lifting operations will be signed and cordoned off to prevent unnecessary and unauthorized persons from entering the area.

Contractor shall ensure that nobody is standing under any lifting or slew operation. No lifting operation shall take place over accommodations or offices.

In case of lifting of offshore containers, the container shall be certified for offshore lifting with its appropriate rigging.

16.20 Lighting for construction sites

The Contractor shall determine suitable and sufficient lighting for activities under its control. The Contractor shall ensure that temporary lighting is suitable and sufficient.

The Contractor shall take account of any additional lux requirements as stipulated in the contract or as required based on a task specific risk assessment.

In all cases, the Contractor shall take into account any light pollution constraints under the Employer consenting conditions.

Temporary LED lighting shall be the Employer's preferred lighting on onshore construction sites.

16.21 Maintenance of Plant and Equipment

The Contractor shall ensure that all equipment brought to the Sites is in good condition, is maintained in good condition.

Safe Systems of Work shall be implemented by the plant and equipment operators to ensure all necessary electrical and mechanical isolations are locked with caution notices posted at the point of isolation, these should be supported by a Permit to Work or Isolation Certificate.

The Safe System of Work shall be monitored and reviewed on a frequent basis and records kept of any identified non-conformances and actions taken to rectify these.

16.22 Manual Handling

The Contractor shall have a procedure that ensures the risks associated with manual handling are properly assessed and suitable control measures are identified and implemented as required by the Applicable law and OHS relevant regulations.

16.23 Noise

The Contractor shall have a procedure to comply with the requirements of the Applicable Law regarding to control of noise at work and to prevent or reduce the risks to health and safety from exposure to noise at work.

The Contractor shall assist Employer in discharging its duties under any requirements defined in OHS regulations and EIA decision and ensuring it fully understands any planning consent conditions and ensures they are also complied with.

The Contractor shall notify Employer of the details of any contractor appointed to carry out noise monitoring. Employer reserves the right to review the competency of the Competent Person at any time.

16.24 Non-Ionising Radiation

The Contractor shall notify Employer of the details of the contractor appointed to carry out monitoring for Exposure Limits in line with IEC (International Electro technical Commission) and CEN (European Committee for Standardisation). This information shall also be required to be identified on the Contractor's project organogram. Employer reserves the right to review the competency of the Competent Person at any time.

16.25 Onshore Traffic Routes

The Contractor shall appoint a member of the project team to carry out the role of 'Traffic Management Coordinator'. This role shall be responsible for as a minimum the following:

- Preparation, review and update of the Traffic Management arrangements (either held in the Project HSE Plan or in a separate Traffic Management Plan);
- Ensuring that the arrangements within the induction are in line with the site-specific traffic management arrangements and planning consent requirements;
- Ensuring that a site-specific traffic management induction is given to all operatives who operate vehicles / plant on the site;
- Ensure that a TMP display panel or board is kept up to date at the project – this shall be checked daily to ensure it is aligned to the latest TMP; and
- Ensure that a TMP flash card is produced to be given to each delivery driver that arrives to site outlining the requirements that the delivery driver shall comply with.

The Contractor shall name in the Project HSE Plan who the named vehicle marshals are for the project. This shall be maintained throughout the project.

Where the use of a Vehicle Marshalls is proposed, the Contractors shall ensure:

- The Vehicle Marshall shall be trained;
- The use a clear, agreed system of signalling;
- Vehicle Marshall is always visible to drivers;
- Vehicle Marshall stands in a safe position, from which to guide the reversing vehicle without being in its way; and
- Should wear hi-vis blue clothing which identifies 'Vehicle Marshall' on the rear.
- Vehicle Marshalls are required where any plant or equipment interfaces with pedestrian traffic.

The Traffic Management Plan shall address the following issues:

- Keeping pedestrians and vehicles apart;
- Minimising vehicle movements;
- People on site;
- Turning vehicles;
- Visibility; and
- Signs and instructions.

The TMP shall be submitted to the Employer for review one month prior to works commencing.

16.26 Operating Plant

The Contractor shall ensure that all personnel operating plant are suitably trained and competent on the equipment being used.

16.27 Overhead and Underground Services

The Contractor shall comply with Applicable Laws and Health and Safety Regulations to avoid danger from underground services and avoiding danger from overhead power lines and shall outline in setting to work documentation how the above documents shall be complied with.

The Contractor shall identify within the Project HSE Plan the procedure to be followed to ensure that heights of vehicles are checked prior to all vehicle movements.

As a minimum the following barriers shall be constructed:

- Goalposts will be rigid, non-conducting material – either timber of plastic pipe.
- Steel drums will be used, highlighted with red and white horizontal stripes
- Goalposts will be painted with red and white stripes using fluorescent paint or by attaching reflective strips.
- Fixed warning notices at either side of the passageway will be posted prior to the crossbar giving the crossbar clearance height and instructing drivers to lower jibs, booms, tipper bodies etc.
- Fixed warning notices shall be of sufficient size to be clearly visible from a distance, shall be weather resistant and shall be maintained for the duration of the works.
- When working in darkness or in poor weather conditions, the goalposts shall be illuminated.
- Goalposts will be maintained at all times.

The Contractor shall liaise with the overhead asset owner to identify the required height of the goalposts.

If the Contractor is carrying out work in an area with existing underground or overhead services, then it may need to implement measures to protect these services. Where excavations are carried out near buried services the Contractor should not solely rely on the available service drawings but shall use the appropriate detection equipment to confirm the presence of services and follow safe digging practice.

If site traffic is working close to or passing under any overhead power lines than a risk assessment must be undertaken to quantify the level of risk and to determine the appropriate control measures for the situation.

For underground services there may be requirement to protect services even if excavation is not taking place in the vicinity especially if heavy plant is going to pass over them. It may be necessary to install temporary protection across the services at identified crossing points and require all vehicles to use them.

16.28 Portable Electrical Equipment & Hand Tools

Independently of Contractor’s nationality, all tools and equipment used shall be regularly inspected and certified in accordance with relevant Polish standards. Calibration certificates must be on site with the equipment at all times.

Contractor shall ensure that powered and hand tools are properly used and maintained, inspected and tagged prior to use in accordance with the manufacturer’s instructions, and that all applicable guards and handles are in place. Tools must be operated only by competent workers who are knowledgeable in the safe use, limitations and maintenance of that tool. Tools will operate at the lowest voltage necessary for the task. Contractor shall ensure suitability of tools for the purpose and place in which it is going to be used.

The Contractor shall ensure that any portable electrical equipment taken to the Sites, has been subject to Portable Appliance Testing (PAT Testing) or equivalent testing procedure is applied, or has been risk assessed and is maintained safe through other means.

16.29 Remote and Lone Working

The Contractor shall consider remote and lone working in the planning and risk assessment of any activity and ensure that suitable and sufficient arrangements are in place to execute the work safely.

The Contractor shall detail the process that will be in place to control the requirement for lone working. This information shall be provided as part of the Project HSE Plan.

The Contractor must seek formal acceptance from Employer prior to commencement of any work activities that may involve lone working. Acceptance of this by Employer does not absolve the Contractor's duties to manage and monitor lone working activities.

There shall be no lone working offshore.

16.30 Scaffolding - Fixed

Each individual scaffold structure shall have a job and site-specific risk assessment recorded in writing which is accepted by the Contractor that the scaffolding contractor is working for before work commences to erect, alter or dismantle a scaffold.

Risk Assessments and Method Statements shall be carried out in line with the international standards and OHS legal requirements.

All scaffolding activities being undertaken on site shall be supervised by competent /trained personnel with valid certificate.

The Contractor shall utilise the Scaff tag system for all scaffolds and this shall supplement the requirements of a scaffold register in line with the mandatory legal requirements.

Contractor shall ensure that all scaffold erection is in compliance with legislative requirements and according to the manufacturer's instructions.

All scaffolds shall be designed, erected and inspected by competent / trained persons. Following erection hand over certificates shall be obtained and filed on site. The handover of a scaffold shall take place with the Authorized Scaffolder, the Contractor's Site Manager and (if a different entity) the Principal Contractor's Site Manager at initial installation and thereafter, when there is significant modification to the scaffold.

With regards to tube and fitting, system and mobile, (tower), scaffolds, take account of the relevant Work at Height regulations, and other applicable regulations, manufacturer's instruction manual and EN 12810 and EN 12811.

All scaffolds shall be inspected weekly or following adjustment/alteration or severe weather conditions. No unauthorised alterations shall be made.

Contractor must provide appropriate levels of supervision taking into account the complexity of the works and the levels of training and competence of the scaffolders involved.

16.31 Scaffolding – Mobile

A nominated person is permitted to erect, inspect, use, move, alter and/or dismantle a lightweight mobile tower if they are competent and hold a recognised qualification that specifically includes mobile towers.

Mobile towers must be inspected as often as is necessary to ensure safety.

Recommended best practice is that they be inspected and a report made by a competent person after assembly, or significant alteration, and before use. Thereafter, they should be inspected as often as necessary but at least every 7 days, or after any event likely to have affected stability or structural integrity, such as adverse weather conditions. There is no need to inspect and report every time the mobile tower is moved at the same location.

16.32 Storage of Materials

The Contractor shall ensure that all materials used on site are stored in an appropriate manner for the hazards associated with them.

All storage areas should be away from traffic routes to reduce the possibility of accidental damage. Spill kits should be available at all storage areas and be available if refuelling is being carried out away from the storage area.

16.33 Storage - Fuels

The Contractor shall ensure that on the Sites, if under its control, fuels are stored in double-skinned tanks or in a bunded area to prevent pollution of the surrounding area. The tanks shall also be locked when not in use. The Contractor should also consider installing oil interceptors within any drainage associated with site compounds or refuelling areas, particularly where there is a recognised risk of spillage/leakage and based on risk assessment considering the nature and extent of the plant operating and refuelling.

16.34 Storage - Cylinders

The Contractor shall ensure that on the Sites, if under its control, gas cylinders are stored in an upright position and properly secured when not in use. The cylinders shall also be segregated based on the properties of the gas. LPG cylinders shall be stored separately from other gas cylinders and cylinder storage areas shall be locked when not in use.

16.35 Storage - Chemicals

The Contractor shall ensure that on the Sites, if under its control, chemicals, including oils, are kept in a secure container with suitable bunding or drip trays for any liquids. All storage areas must be identified with appropriate signage advising of the hazards and should separate from any traffic routes.

16.36 Use of diesel or electrical powered vehicles

Are deemed considered by diesel or electrical powered vehicles all forklifts, all mobile elevated work platforms (MEWP), all excavators, etc.

All personnel who shall use such equipment must be appropriately trained and have the adequate authorization from his Company in compliance with the Polish law. All users must carry with them their training certificate and authorization during the work.

All works requiring the use of such vehicle must be preliminary risk assessed, equipment being used on board a vessel, alongside the quay or in the landfall area. All diesel powered vehicles will be prohibited while indoor working. For outdoor operations, stability of the land will be ascertained at all times to prevent equipment to get bogged down in the shingle/sand, in a tidal zone for instance.

Periodical technical checks of such equipment shall be done in compliance with the Polish legal requirements. Every certificate shall explicitly mentioned the relevant Polish regulation wherever the mobilization of the vehicle has been performed (Poland or in Europe).

16.37 UXO onshore

The Contractors shall consider UXO when planning, risk assessing and executing project activities, and review Employer provided information.

The Contractor shall notify Employer of details of the specialist contractor who will provide specialist advice on explosives and UXOs. Employer reserves the right to refuse any nomination where the competency of the appointed person cannot be fully demonstrated.

In the event of a UXO discovery, all works are to be suspended and the Employer is to be informed immediately.

16.38 Vibration

The Contractor shall have a procedure to comply with the requirements of the Applicable Law and OHS regulation regarding to control of vibration at work by assessing and identifying measures to eliminate or reduce risks from exposure to hand-arm or whole-body vibration.

The Contractor must identify all the activities that may pose a risk from vibration and identify all the personnel that may be involved in the activity and then determine the appropriate control measures to reduce the risks to personnel.

16.39 Waste Management

The Contractor shall have a procedure for waste management. It shall provide details on their arrangements for the following:

- Waste description;
- Waste minimisation and Recycling waste description;
- Storage of waste;
- Labelling of waste;
- Waste Transfer;
- Waste Records; and
- Special Waste.

The Contractor shall also provide the Employer with estimates of approximate waste generation for the duration of the works which shall be done prior to works starting and records of actual waste generated throughout the works.

16.40 Work Equipment – Plant and Machinery

The Contractor shall ensure that all equipment brought to the Sites is in good condition, is maintained in good condition.

Work equipment must be suitable for the purpose for which it is used or provided and used only for operations for which it is suitable. In selecting work equipment, the Contractor shall take account of:

- the working conditions and risk to health and safety from the premises it will be used in;
- who will use the equipment;
- the work equipment itself.

Work equipment shall conform to any legislative requirements applicable, at the time of providing the service.

The work equipment should comply with common minimum safety requirements but, before putting it into use, the Contractor will ensure and confirm to Employer:

- that the equipment is not obviously unsafe, comes with all features necessary for safety (e.g. guarding for machinery) and is suitable for the purpose to which it is to be used or provided
- that it comes with user instructions, which should be in English
- if machinery, that information on noise and vibration emissions is provided
- that it is CE marked and accompanied by a Declaration of Conformity, unless these are not required because:
  - no European Product Supply Directive applies (mainly non-powered access equipment and non-powered hand-held tools)
  - it is partly completed machinery, in which case it should come with a Declaration of Incorporation but no CE mark
  - it is electrical equipment, which does not need to be accompanied by the Declaration of Conformity, but must still be CE marked.

All equipment shall be subject to periodic or thorough examinations and accompanied by the relevant evidence of certification. The examinations carried out shall satisfy the any applicable legislation.

The Contractor shall ensure that all safety critical items within equipment are inspected and/or thoroughly examined as per Applicable Laws requirements.

The Contractor shall ensure that statutory inspections as per Applicable Law and OHS legal requirements are carried out. The minimum content of the inspection report shall be as follows:

- Date of inspection
- Description of plant or equipment
- ID number
- Details of inspection – including any defects identified and actions taken
- Date of next inspection

- Inspected by

The Contractor shall ensure that the Project HSE Plan includes the requirement for operator checks to be undertaken pre-use. This process shall include the process to be followed where a defect is found, including quarantine requirements.

The minimum content of the operator check shall be as follows:

- Date of inspection
- Plant / equipment description and reference
- Outcome of inspection
- Name, and signature of person inspecting plant
- Specify whether a 'defect reported' or 'plant quarantined'
- All compressed air hose connections shall be fitted with proprietary 'whip arrestors' and rubber seals.
- All plant fitted or retro-fitted with a Quick-Hitch type accessory connector, must comply with the following requirements:
- All Quick-Hitches used must be of the 'fully automatic second generation, type encompassing a device that physically locks or secures both pins of the accessory;
- Second generation fully automatic hitches must be manufactured in such a way that in the event of a mechanical or hydraulic failure they will not detach from the dipper arm;
- All fully automatic hitches are to be identifiable from a distance;
- Operators are to have received familiarisation training with the specific type of hitch used on their plant, and records kept.
- All plant and machinery working adjacent to live overhead lines shall be fitted with height/slew restrictors where identified by a risk assessment.
- Mobile elevating work platforms will be CE marked and comply with EN 280:2013.

All plant used for lifting operations shall be fitted with weight indicators / % capacity / limit switches and safety cut out.

16.41 Working at Height

The contractor shall have a Working at Height (WAH) Procedure for the works that is consistent with the ***G+ Good Practice Guideline: Work at height in the offshore wind industry***, and International and National regulations

As appropriate, it shall address the following as a minimum:

- Training;
- Fitness;
- Use of Anchors;
- Competence;
- Onshore and Vessels;
- PPE;
- Falling Objects;
- Supervisory/Work Arrangements;
- Specific WAH activities;

- Transfer between vessels and offshore structures;
- Accessing work locations;
- Rope Access;
- Rescue; and
- Equipment.

The following safety critical rules are to be followed while engaging in activities at height:

- Permanent attachment shall be applied when working at height;
- 100% compliance with any safety rules / safe systems of works / emergency procedures;
- An exclusion zone shall be physically demarcated (minimum of continuous rope or chain) and access controlled by a nominated person;
- No entry into the exclusion zone without permission and positive verbal confirmation from the nominated person that all works, and movement above have stopped. The nominated person shall be present at ground level and should be easily identified either by different coloured vest or by armband;
- Hand tools shall be tethered when in use or captive when not in use.
- All equipment and materials shall be secured, raised / lowered and used in a controlled manner;
- Working above / below another activity which is in progress is prohibited. If it is unavoidable then the Contractor shall stipulate controls via the MSRA and shall submit this to Employer for acceptance;
- Supervisors shall be positioned to allow control and communication with all team members; and
- All incidents / near misses / hazards shall be reported.

17. Marine and Aviation

The following sections present the Employer's expectations and requirements of the Contractor on a range of marine and aviation related hazards and issues.

17.1 Access and Egress

The Employer defines access and egress, in this section, as:

- The transfer from an access vessel to the first safe platform on a fixed or floating offshore renewable energy installations, structure or accommodation vessel; and
- The transfer by helicopter between a helipad (which may be onshore or offshore) and the nacelle of a WTG, by means of winching between the helicopter and a purpose-designed Helihoist platform on the nacelle; or a helideck where the helicopter lands on an offshore structure (such as a substation) or an accommodation or support vessel.

The Employer differentiates marine crew and project crew in the following way:

- Marine crew – all seamen and support personnel who are wholly engaged in the operation and navigation of a seagoing vessel and play no part in any other project works;
- Project crew – all personnel involved in works involving deployment and operation of equipment, installation, commissioning, inspection and operation of assets offshore.

Project crew includes crane operators and riggers on deck if these roles are not directly engaged as marine crew by the vessel operator.

Suitable access arrangements are also required in ports and harbours, and for any other transfers between vessels.

A range of approaches has been adopted for offshore access from vessels. Although the Employer prefers 'walk to work' systems, the Contractor shall risk assess and demonstrate how it has arrived at its proposed transfer methodology.

Under routine circumstances, the Employer's preference is for crew changes to happen in port and not at sea. If the Contractor wishes to conduct transfers at shall risk assess all aspects and provide justification prior to doing so.

In limited cases, it may be necessary to carry out a marine crew change whilst the vessel is in the windfarm area, where this occurs, a number of potential methods may be accepted by the Employer, subject to a suitable and sufficient risk assessment being carried out and adequate training being undertaken. As an example, the vessel may be a Jack Up Vessel with a walk to work system, in this case, marine crew may use the foundation boat landing via the existing ladder to access a Crew Transfer Vessel. This would require individuals wearing the correct fall protection PPE and personal flotation device adequate for the extra weight for the fall protection equipment, (275N), and to have received suitable training on this method.

The Employer's preference is for stepping on to ladders for vessel-to-vessel transfers. If the Contractor wishes to use other methods, such as 'Frogs', they must justify doing so and demonstrate why other options are not possible.

17.2 Archaeology offshore

In in the event of discovering an object on the seabed, all works shall be suspended, and the Employer shall be immediately informed.

17.3 Aviation

In addition to complying with all relevant codes and legislation, the Employer adopts a similar approach to contracting aviation services as it does to contracting vessels. Assessments of suitability and operational worthiness are conducted by an independent expert.

The Contractor shall conduct similar assessments, however all instances of using aviation services on the Sites require prior approval from the Employer.

17.4 Client Representation – FLO, MMO, PAM

The following outlines the standards and requirements that will be put in place for all Fisheries Liaison Officers (FLOs), Marine Mammal Observers (MMOs) and Passive Acoustic Monitoring (PAM) Operators (collectively known as 'Environmental Representatives') employed by Employer, if required for the Contract.

17.4.1 Living Conditions

The living standards and general requirements outside of working shifts for the FLO, MMO and PAM Operator will be equivalent to those for a Client Representative e.g. own cabin when this can be accommodated (same sex sharing where a single cabin occupancy is not possible).

Environmental Representatives should have a cabin in the main part of the vessel meaning that any temporary accommodation (e.g. on deck / in containers etc.) is not suitable.

17.4.2 Working Conditions

The Environmental Representatives are specific roles that require different working conditions however a general rule for each will be to have the full cooperation of the crew. This requires that an open and transparent relationship is in place and assistance is provided to the Environmental Representative when required.

Specific working requirements for each Environmental Representative are provided in the chapter below.

17.4.2.1 FLO

The FLO shall be consulted / included in daily meetings on survey activities so that they can carry out their core function, that is to advise captain/crew on areas of fishing activity to be avoided and to communicate to fishing vessels active in the vicinity of the survey vessel. Consultation with the FLO during survey operations includes the following operations:

- Transiting to and from port/harbours (as these areas can be densely populated with static fishing gear and local knowledge is essential to avoid interactions)
- Calibration test operations
- Operating outside the survey area e.g. dodging weather, anchoring.

The FLO carries out the vast majority of their role from the vessel's bridge or wheelhouse. Therefore, adequate space and acknowledgement of this requirement from survey vessel captain/crew is required.

The FLO normally works a 12-hour shift however it is important for the captain/crew to remember that the FLO is always on call in the event they are required to speak directly to fishermen or advise the captain/crew on areas of high fishing activity. Therefore, there should be no hesitation from the captain/crew to call the FLO to the bridge when an incident (e.g. interaction with static fishing gear) arises or more importantly in advance of this where action can be taken to prevent an incident.

17.4.2.2 MMO

The MMO carries out the majority of their role from the bridge, deck and any viewing platforms on the vessel therefore adequate space and acknowledgement of these requirements shall be provided by the vessel captain/crew.

The MMO carries out pre-survey operation marine mammal watches and the captain/crew shall accommodate this as a strict requirement. Specific details of what is required will be communicated to captain/crew by the MMO.

In conditions where observing marine mammals is not possible (due to wave height, poor visibility) the MMO will use passive acoustic monitoring equipment to carry out pre-survey operations checks.

17.4.2.3 PAM Operator

The PAM Operator can carry out duties from a variety of locations on the vessel. This is typically influenced by the location and way in which the PAM equipment is set up.

The PAM Operator will set up the (typically leased) PAM equipment during the survey vessel mobilisation period. The PAM Operator will calibrate equipment and ensure it is working and ready to be deployed/utilised during the survey.

The captain/crew should take great care to ensure the PAM Operator has a suitable (safe, secure and comfortable as possible) location to be located during their working shift and a suitable area to house the equipment.

The PAM Operator's shift is generally 12 hours and takes place during the hours of darkness. However, during hours of brightness (e.g. in summer) the PAM Operator will undertake MMO duties as these are more suitable during hours of brightness in good weather conditions.

17.5 Diving Operations

One of the Employer's aims for the project is to avoid or minimise the use of divers.

The risks involved in diving can be avoided if subsea operations involving personnel interventions are designed out, or alternative methods such as Remotely Operated Vehicles (ROVs) or Autonomous Underwater Vehicles (AUVs) adopted. However, if diving is demonstrated to be the safest option, it is essential that early planning is conducted to eliminate and minimise diving risks.

The Contractor shall try to design out diving from its project activities and where this is not possible shall provide and demonstrate that it is carried out, so far as is reasonably practicable, without risk to the health and safety of all those taking part in that operation and of other persons who may be affected thereby.

Where diving is unavoidable and can be shown to be the safest option, the following guidance shall apply:

- The Contractor shall ensure that it gets advice from, or engages a, competent diving contractor to ensure that a proper scope of work is planned, prepared and executed.
- The Contractor should have a diving safety management system in place i.e. d iving policy and basic procedures for management of the works and to help with legal compliance.

The diving contractor shall identify the arrangements in place for the treatment of any cases of Decompression Illness (DCI). The diving contractor has a responsibility to provide facilities so that a diver can be recompressed in an emergency should this be necessary. Treatment of DCI in a compression chamber should commence as soon as possible and the location of the facilities shall be determined on that basis, taking into account the minimum standards presented below. The provision of a recompression chamber should be in accordance with the decompression procedures selected as part of the diving project plan.

In addition, the following minimum standards shall apply:

- For dives with no planned in-water decompression and that are less than 10 metres the diving contractor shall identify the nearest suitable operational two-person, two-compartment chamber. Under no circumstances shall this be more than six hours travelling distance from the dive site;
- For dives over 10 and up to 50 metres with either no planned in-water decompression or with planned in-water decompression of up to twenty minutes, a suitable two person, two-compartment chamber shall be no more than two hours' travelling distance from the dive site;
- For dives with planned in-water decompression greater than twenty minutes a suitable, operational, two-person, two-compartment chamber shall be provided for immediate use at the site of the diving project.

The diving contractor shall ensure that:

a) the diving project is properly and safely managed;
b) risk assessments have been carried out;
c) the place from which the diving is to be carried out is suitable and safe;
d) a suitable diving project plan is prepared which includes emergency and contingency plans;
e) the supervisor and dive team are fully briefed on the diving operation that they will be involved with and aware of the contents of the overall diving project plan;
f) there are sufficient personnel in the dive team to enable the diving project to be carried out safely;
g) the personnel are competent and/or qualified;
h) supervisors are appointed in writing and the extent of their control documented;
i) where appropriate a suitable mobilisation and familiarisation programme is completed by all the members of the dive team. Other personnel involved in the dive project, for example ship's crew, may also need to complete the programme;
j) adequate arrangements exist for first aid and medical treatment;
k) suitable and sufficient plant is provided and that it is correctly certified and maintained;
l) as far as they are able, the divers are medically fit to dive;
m) diving project records are kept containing the required details of the diving project;
n) a clear reporting and responsibility structure is laid down in writing;
o) all other relevant regulations are complied with.

17.5.1.1 Responsibilities of the Diving Contractor

The diving contractor is normally the individual, partnership, company, or other corporate body that employs the divers for a diving project. A diving project is the term used for the overall diving job (whether it lasts two hours or two months). Depending on the size of the diving project, it can be made up of a number of diving operations. A diving operation is the portion of the diving project which can be safely supervised by one person. A supervisor must be appointed for each diving operation.

The diving contractor is the person who plans and conducts a diving project. No diving work may go ahead without a competent diving contractor being appointed.

The diving contractor shall ensure that the diving project is planned, conducted and managed in a safe way.

17.5.1.2 The Diving Supervisor's Responsibility

The supervisor must be appointed in writing by the diving contractor. The Supervisor shall be suitably qualified and competent in the techniques being used in the diving project.

Supervisors are responsible for the safety of the diving operation which they are supervising and shall be on site and in direct control of the diving operation.

17.5.1.3 The Divers' Responsibilities

Divers have a number of responsibilities these include, but not limited to:

- Holding an approved qualification for diving that is suitable for the method and relevant approved codes of practice that the work is being carried out under
- Being competent to work safely, this may be proven by additional training
- Holding a valid certificate of medical fitness to dive
- Complying with the directions of the supervisor and the dive plan
- Maintaining a daily record of their dives which they should keep for at least two years

17.5.1.4 Documentation

When planning diving operations, it is essential that the Contractor, when compiling a request for diving services, takes into consideration the time required for the appointed Diving Contractor to review all relevant documentation submitted and to inform those tendering for diving operations.

All submitted documentation including Risk assessments and Method statements must be forwarded to the appointed Diving Consultant for review, therefore it is essential that contractors submit documentation for diving operations at least 3 weeks prior to the date of dive.

17.6 Remotely Operated Vehicle (ROV)

Contractor should ensure that the chosen ROV system has been satisfactorily tested prior to mobilization and that it is capable of fulfilling all operational requirements.

17.6.1 Risk assessment

Risk assessment should be carried out by Contractor to identify site-specific hazards and assess their risks. Based on this information, the procedures should then state how these hazards can be mitigated.

17.6.2 Operating procedures

The operating procedures should normally consist of both the ROV Contractor's standard operating rules together with site-specific requirements and procedures. Contractor shall have in place the contingency procedures for any foreseeable emergency.

17.6.3 Manuals and documentation

A major factor in the safe and efficient operation of ROVs is the provision of a comprehensive set of manuals, check lists and log books. Is the Contractor's responsibility to ensure that each ROV system is supplied with the necessary documentation, including:

- operations manual;

- quality, health, safety and environmental management system;
- technical manuals for system equipment;
- system daily log/report book/dive log;
- planned maintenance system;
- repair and maintenance record/spare parts inventory;
- pre- and post-dive checklists.

The Contractor shall be familiar with all relevant legislation for the operational area.

17.6.4 Handling systems

Contractor shall have developed and implemented list of safe operating parameters for the handling system of ROV units. Contractor personnel shall be aware of the loads to which the system is subjected during normal operations. Standard welding procedures and NDT, for example dye penetrant, shall be applied to all load bearing fastenings associated with tie down, both before and after load testing.

17.6.5 Launch and recovery operations

It is Contractor's responsibility to ensure that a safe launch and recovery procedure is in place and is adhered to and understood by all members of the ROV Unit and support location crews. The procedures should progress in smooth, logical steps and be designed so that all personnel involved in the operation are fully aware of the situation at all times.

17.6.6 Communications

The effective communications shall be established during the ROV operations. Contractor shall provide all necessary means of communication including but not limited to hard wire communication systems, word of mouth, toolbox talks and radios.

All personnel directly involved in the operation should be fully aware of the work being undertaken and the status of any unusual situation that may arise during operations.

Communications between the ROV operating crew and any other relevant personnel (such as the support vessel crew) shall be established.

If a diving operation is taking place in the vicinity, established communications should exist between:

- the diving supervisor and the ROV supervisor – when an ROV is used in a diving operation the diving supervisor has ultimate responsibility for the safety of the whole operation;
- the diver and the ROV operator – this communication is normally routed through the diving supervisor. If the ROV is monitoring a diver, back-up hand signals should be rehearsed.

The ROV supervisor should have appropriate access to the communications service of the vessel or installation on which the operation is based, as and when required.

17.6.7 Safe use of electricity

Contractor must have developed and implemented procedures to ensure that all personnel are protected from any electrical hazards and particularly from electric shock.

17.7 Drones

Where the Contractor intends to use drones/unmanned aerial vehicles for the works, shall ensure that:

- The task is fully risk assessed;
- they comply with Civil Aviation Authority regulations;
- the equipment is well maintained and in a safe condition;
- is operated by a competent and licensed pilot.

17.8 Dropped objects

In the event of any object being lost overboard, or dropped to the seabed, the Employer shall be informed immediately.

The potential for dropped objects and the arrangements required for recovery shall be included in all method statements.

DROPS survey shall be carried out by Contractor and the study report with preventive and corrective actions and defined timeline for closure all actions shall be provided to the Employer minimum of four weeks prior to vessel mobilisation. The Contractor shall take all necessary actions to close the high level risk findings in timely manner before vessel mobilisation.

17.9 Geological Uncertainty

The project information contains all known information about the seabed and associated risks however these will vary in significance depending on the Contractor's activity.

The Contractor shall review all available geological data provided in the planning, risk assessment and execution of its activities.

17.10 Helicopter Operations

Where the Contractor proposes the use of helicopters, the Contractor shall justify the decision and demonstrate the principles of prevention to reduce the risk specific to the operations being carried out. This information shall be provided as a minimum of four weeks prior to start of their Works, or later if the decision to use helicopters is made after contract award. The Contractor shall submit this information as part of the Construction Phase Plan / Project Safety Plan submittal.

The following should be demonstrated in the Project HSE Plan:

- Organisational requirements / procedure for the use of helicopters, including helicopter operators' operations manual
- Identify helicopter pilot(s), Helicopter Coordinator(s); Helicopter Supervisor(s), Ground Crew and Helicopter Signallers;
- Civil Aviation Authority or equivalent approvals / licenses / exemptions;
- Manpower requirements;
- Plant requirements;
- Roles and responsibilities specific to helicopter arrangements;

- Competency requirements (skills, knowledge, experience) for each level – should be conducted through CAA approved training provider;
- Loading / unloading procedure;
- Use of multiple helicopters (if applicable);
- Arrangements for refuelling and fuel storage management;
- Arrangements for lifting operations and lifting equipment;
- Safety of third parties;
- Emergency arrangements specific to the use of helicopters;
- Means for communications;
- Personal Protective Equipment requirements;
- Landscaping requirements;
- Provision for protected walkaways or protection to buildings; and
- Complaints procedure.

17.11 Jack Up Operations

Jack-up operations shall be planned and implemented in line with industry best practice and the **Renewable UK Guidelines for the Selection and Operation of Jack-ups in the Marine Renewable Energy Industry**.

In particular, contingency plans specific to the proposed transit and positioning operations shall be contained in the procedural documentation will include:

- Forecast of or unexpected onset of adverse weather worse than or equal to prescribed criteria
- Motions afloat approaching prescribed limits
- Failure of or damage to sea fastenings and grillage
- Deviation to designated safe havens en-route
- Tug breakdown
- Towing equipment failure
- Jacking system machinery and/or power failure
- Mooring equipment failure
- Survey equipment failure
- Unexpected installation behaviour (leg penetration not as anticipated)
- Pollution response (for units not provided with a Shipboard Oil Pollution Plan (SOPEP))
- Communications equipment failure
- Notifications, contact details and incident reporting.

17.11.1 Marine Coordination and Communication

The Employer shall provide marine coordination for all offshore works. Depending on the scale of work being done this coordination maybe performed in combination with other duties, however for more complex activities a designated marine coordinator function will be required, based either offshore or onshore.

The Employer Representative or Marine Coordinator if appointed will approve any ‘Authorisation to Access’ requests submitted by the Contractor after review of submission and evidence of accepted Safe Systems of Work.

17.12 Navigation

The Sites present a number of navigational hazards, affecting both existing sea users and those directly related to the development. Safe navigation relies on appropriate steps being taken, both by those contracted to work on the project and other sea users. The Pre-construction information contains some information, however navigational risk will always be a dynamic and changing aspect of offshore work.

Depending on the stage of the project and the scope of work, the risk profile will change and there may be a formal marine coordinator in place, which will require interface management and cooperation from the Contractor.

Irrespective of the scope of work the Contractor shall review all available navigational risk information, both that provided by the Employer and external information in the planning, risk assessment and execution of the works.

17.13 Offshore chemicals

The Contractor shall obtain all permits required Applicable Laws for all Contractor substances and chemicals used in offshore operations. The Contractor is solely responsible to implement all requirements and recommendations of Baltic Marine Environment Protection Commission – Helsinki Commission (HELCOM) in regards to use for the offshore Works the substances and chemicals and to follow and apply the OSPAR Convection Harmonised Mandatory Control System (HMCS) for use and reduction of discharges of offshore chemicals.

The Contractor shall provide and maintain an up to date register of substances hazardous to health and maintain a database of corresponding Material Safety Data Sheets/Safety Data Sheets for each substance.

17.14 Ports and Mobilisation

The project activities can introduce challenging demands on existing port infrastructure.

Depending on the stage of the project and the specific activity being conducted the risk profile will vary, however as a minimum the Contractor shall consider the following when planning, risk assessing and executing work:

- Vessels;
- Cargo;
- Access;
- People;
- Interfaces;
- Quayside capabilities;
- Lifting;
- Fuelling; and
- Traffic Management.

17.15 Simultaneous Operations (SIMOPS)

Contractors involved in offshore activity during the construction and O&M phase of the project shall have a SIMOPS process and shall cooperate with the Consortium Leader or Principal Contractor/other contractors in the successful planning and execution of SIMOPS activities. SIMOPS Risk assessment is required as defined in Section 6.4.7 Simultaneous Operations (SIMOPS).

17.16 UXO offshore

The Contractor shall consider UXO when planning, risk assessing and executing project activities, and review Employer provided information.

The Contractor shall submit details to Employer of the specialist contractor who will provide specialist advice on explosives and UXOs. Employer reserves the right to refuse any nomination where the competency of the appointed person cannot be fully demonstrated.

In the event of a UXO discovery, the operations shall be suspended, and the Employer is to be informed immediately.

17.17 Vessel - Anchoring

If the Contractor intends to use vessel anchoring during the works it shall submit a vessel anchor plan to the Employer two months prior to works starting.

17.18 Vessels - Biosecurity

Biosecurity is the concern over the introduction and transfer of invasive non-native marine species to the Sites.

Management of biosecurity focuses on three areas:

- Antifouling;
- Ballast Water Management; and
- Equipment.

The contractor shall comply with all relevant international and national regulations and provide evidence of that compliance.

17.19 Vessels - Bridging Document

When chartering vessels, the Contractor shall ensure that a bridging document is prepared to ensure a full understanding of the work being done to bridge between marine and project operations and to establish good communications. This will be developed by the Contractor with responsibility for such offshore operations i.e. asset installation; this may or may not be the operator of the vessel(s).

The bridging document shall be available onboard the vessel(s) to provide a common understanding of all protocols, a clear understanding of responsibilities and specific contact details for key personnel and organisations both operational and in the event of an emergency. However, it does not replace or compromise the Emergency Response Plan (ERP) and it should be ensured these two documents are complimentary.

This document is intended to significantly enhance Contractor management through providing clarity in the following areas:

- responsibilities (matrix of responsibilities);
- contact details (include a project specific schedule of contact details);
- ensure safe practices are implemented and understood by both marine and project crew;
- bridge between the vessel marine crew and the project crew;
- aligning the emergency response procedures;
- incident reporting and recording processes; and
- good communications and understanding by all parties.

The Contractor may choose to demonstrate that this bridging document is achieved by means other than a standalone bridging document, however the requirements of this section must be met.

It shall be provided to the Employer for review one month before the works commencement date.

17.20 Vessels – Electrical and Mechanical Safety

All shipboard electrical and mechanical plant and apparatus shall be properly maintained in good order and records of planned, or unplanned, interventions kept. Up-to-date operating and maintenance manuals shall be made available on-board vessels and, in line with the requirements of Section 1.3 Project Language , they should be provided in the working language used on the vessel.

Safe Systems of Work shall be implemented by the vessel crew to ensure all necessary electrical and mechanical isolations are locked with caution notices posted at the point of isolation, these should be supported by a Permit to Work or Isolation Certificate.

The Safe System of Work shall be monitored and reviewed on a frequent basis and records kept of any identified non-conformances and actions taken to rectify these.

17.21 Vessels - Equipment Audit and Inspection

Any vessel employed to the Work shall comply at any time with relevant international rules and regulations as well as national laws and legislation for the flag it is flying, as well as for the administration of the operation area.

For the specific purpose of the offshore operation, Contractor shall execute the Work in compliance with the international maritime regulations including, IMO, SOLAS, MARPOL and MLC2006 and applicable codes, standards, regulations, good practices edited by local and international authorities.

The vessel's class shall be approved by a member of IACS and statutory certificates must be valid throughout the period of work. This requirement might be waivered for small boats subject to the Employer approval.

Contractor shall forward all required certificates, relevant information and documentation prior to the vessel mobilization. These will include, but are not limited to, type approvals, insurances, operational procedures, safety procedures, communication procedures, environmental procedures and emergency procedures.

For vessels operating according to ISM and IMO, procedures in the vessel's ISM system must be compliant with these. If the ISM procedure is contradictory to the worksite specific procedures, the conflict must be solved immediately and an agreed procedure be established.

For environmental considerations, all vessels' ballasting operation / water transfer shall fully comply with IMO regulation and Project Environmental Management Plan.

The vessels shall be Global Maritime Distress and Safety System (GMDSS) compliant and shall be capable of detecting the activation of a PLB through the AIS system.

During the detailed engineering phase, Contractor shall detail within the relevant procedures and other operational documents the works to be undertaken by the vessel, such as transportation of personnel, transit to and from the worksite and also in-field transit, transportation, loading, unloading of equipment, surveys, cable laying, offshore accommodation for personnel, or combinations thereof.

Particular details shall be given with regard to the vessel's limitations relevant to sea conditions (including, but not limited to, wave height, peak wave period, wind conditions and current, for both operational and survival conditions) as well as the operational conditions for the DP system's worst case single failure, if operating in DP mode.

Before mobilization on the Project, the vessel shall be in possession of a full IMCA marine audit (CMID) or equivalent carried out within the last 6 months. Any significant findings (non-conformities) of this audit shall be implemented prior to the vessel's departure for offshore operations.

The above information should demonstrate to the Employer that the vessel is 'fit for purpose'.

All vessels nominated in the Contract could be inspected by Employer's HSE team or 3rd Party Inspector on behalf of Employer. Inspection can be performed either through a document review and/or through a physical inspection of the marine spread.

Contractor is responsible for the maintenance and the general intrinsic quality of his tools and machines used for the Work. As such, any damages/consequences due to the non-respect of this obligation are entirely under Contractor's responsibility.

Although both the survey and CMID will consider equipment, where appropriate the Employer may require independent inspection of safety critical and project critical equipment including:

- Cranes;
- Hydraulic hammers;
- Underwater inspection equipment e.g. ROVs;
- Lifting frames and templates; and
- Drilling equipment.

The Contractor is to provide lists of onboard equipment to facilitate this agreement.

17.22 Vessels – Management Systems

The Contractor shall ensure that all vessels it charters or provides:

- operate a safety management system (SMS) which complies with the International Safety Management (ISM) Core requirements of the IMO, if over 500GT or;
- have an SMS approved by the vessel flag state which has been recognised by the MCA and meets Polish port state requirements if the vessel is operating in Polish territorial waters, or;
- [for Jack-ups] have a documented procedure that includes all key requirements of the ISM Code if not ISM compliant.

18. Performance Evaluation

18.1 Accident and Incident Reporting

The Contractor is required to report all incidents to the designated Employer representative as soon as is practicable but no more than 1 hour following the incident. The following information is to be relayed to the Employer representative at the time of the initial reporting:

- Name of the individual reporting the incident;
- Incident classification as per the criteria below;
- Name of the contractor who has had the incident;
- Incident date;
- Time of the incident;
- Person(s) involved;
- Location of the incident specifically;
- Initial description of the incident – this should include the task being undertaken at the time of the incident and a description of the circumstances leading up to the incident.
- Description on the immediate actions undertaken by the Contractor – this should include a description of immediate actions to respond to the emergency – both to secure the scene and to treat any injured parties.
- Status of the injured party / workplace at the time of reporting; and
- Name of contractor producing the incident report.

18.2 Event Definitions

Incidents marked in red in below table, must be reported by the employing organization directly involved in the event to the applicable regional Authority. The Contractor shall ensure employers under its control, report such via the prescribed channels and shall provide a copy of the report to the Employer representative on the same day.

All other events to be reported at the earliest, practical opportunity within 24 hours.

Event Definitions	
Term	**Definition**
Event	An unplanned or uncontrolled outcome of a business operation or activity that has or could have contributed to an injury or physical damage or environmental damage.
Incident	An unplanned or uncontrolled Event or chain of Events that has resulted in at least one fatality, recordable injury, or physical or environmental damage.
Work-related	A case is work related when, as far as safety reporting performance is concerned, the event occurs during employment or is related to the contractual activities of personnel, within Site boundaries and within normal working hours or overtime. An incident is also considered work related when the exposure in the working environment is the discernible cause of or contributes to an injury or significantly aggravates a pre-existing injury.

Event Definitions	
Term	**Definition**
	The work environment refers to any location where the definition of HSE reporting boundaries applies. Generally, by HSE reporting boundaries is meant the perimeter of a working area (not necessarily a geographic area) where Contractor has the responsibility to set HSE standards and directly supervise (i.e. Contractor personnel have the ability to monitor the application of HSE standards through a direct reporting line and by presence on Site) and enforce their application. The following types of incident are NOT to be considered work related: - Injuries incurred on Contractor's premises while off duty: injuries during lunch breaks, rest breaks, in the sanitary facilities. - Injuries to employees while taking a shower or using the wash room and toilet facilities if the use of these facilities was not occasioned by employee's work; - those involving members of the general public, visitors, regulatory agents temporarily present within Site boundaries
Fatality (FAT)	An incident that involves death as a result of a work-related incident or occupational illness. Deaths that occur after an incident but are a direct consequence of an incident are to be included. Fatalities are included when calculating the number of Lost Time Injuries Frequency (LTIF) and Total Recordable Injury Rate (TRIR).
Lost Work Day Incident (LWDI)	Any work-related injury, other than a fatal injury, which results in a person being unfit for work on any day after the day of occurrence of the occupational injury. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment.
Lost Time Injury (LTI)	A fatality or lost work day incident. The number of LTIs is the sum of fatalities and lost work day incidents.
Lost Time Injury Frequency (LTIF)	The number of lost time injuries (fatalities + lost work day incidents) per 1,000,000 (1 million) hours worked.
Restricted Work Day Injury (RWDI)	An incident that does not result in a fatality or a lost work day but does result in a person being unfit for the full performance of the regular job on any work on any day after the occurrence of the occupational injury. Work performed might be: ▪ an assignment to a temporary job ▪ part-time work at the regular job ▪ working full-time in the regular job but not performing all the usual duties of the job
Medical Treatment Injury (MTI)	An incident not severe enough to be reported as a fatality, lost work day incident or restricted work day incident, but which is more severe than requiring simple first aid treatment. Medical treatment does not include: ▪ The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g. eye drops to dilate pupils). ▪ Visits to a physician or other licensed health care professional solely for observation or counselling. ▪ The 14 specific first aid treatments as described under First aid. ▪ Exercise recommended by a healthcare provider for employees who do not exhibit signs or symptoms of an injury or illness.

Event Definitions	
Term	**Definition**
Total Recordable Injury Rate (TRIR)	The number of fatalities, lost work day incidents, restricted work day incidents and medical treatment injuries per million hours worked. The number of recordable injuries (fatalities + lost work day incidents + restricted work day injuries + medical treatment injuries) per million hours worked.
First Aid Injury (FAI)	First Aid: An injury which requires simple treatment that is self-administered or by a first aider, doctor or nurse but does not result in lost time or long-term medical care. First aid includes: 1. Using a non-prescription medication at non-prescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for record-keeping purposes). 2. Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment) 3. Cleaning, flushing or soaking wounds on the surface of the skin 4. Using wound coverings such as bandages, Band-Aids, gauze pads, etc.; or using butterfly bandages or Steri-Strips - (other wound closing devices such as sutures, staples, etc., are considered medical treatment) 5. Using hot or cold therapy 6. Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for record-keeping purposes) 7. Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.) 8. Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister 9. Using eye patches 10. Removing foreign bodies from the eye using only irrigation or a cotton swab 11. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means 12. Using finger guards 13. Using massages (physical therapy or chiropractic treatment are considered medical treatment for record-keeping purposes) 14. Drinking fluids for relief of heat stress
Near Miss / Near Hit	An unplanned on uncontrolled event or chain of events that has not resulted in recordable injury or physical damage or environmental damage but had the potential to do so in other circumstances.
Hours Worked	For onshore operations, the actual ‘hours worked’, including overtime hours, are recorded. For offshore workers, the ‘hours worked’ are calculated on a 12-hour workday. Vacations and leaves are excluded.
Asset damage	An event where there is damage to plant, equipment or facilities (no injury to persons).
High potential incident	High potential incidents are incidents or near misses that had the potential to cause a fatality/ lifechanging injury
Occupational Disease	According to the Protocol of 2002 to the Occupational Safety and Health Convention, 1981, the term “occupational disease” covers any disease contracted as a result of an exposure to risk factors arising from work activity.

Event Definitions	
Term	**Definition**
Environmental Damage	An unexpected, unplanned event or chain of events that result in harm to the environment.
Environmental Near Miss	An unexpected, unplanned event or chain of events that has not produced damage to the environment but had the potential to do so.
Vehicle Accident	Any accident involving a Contractor/Sub-Contractor's vehicle during transportation of personnel or goods as per Contractor contract. The accident has to be reported to the Employer regardless the vehicle occupant of the sustained an injury or not. When one or more vehicle occupants sustain a personal injury, the accident has to be recorded once as vehicle accident and as the relevant event (i.e., LTI, RWDI, MTI).
Commuting Accident	Commuting injuries are all of those which occur whilst an employee is travelling between a place of residence (Contractor provided or personal) and the workplace and vice-versa. Commuting Injuries are not included in Lost Time Injury or Total Recordable Incidents, and in the calculation of the LTI Frequency Rate or TRI Frequency rate. Occurrences where an employee is injured whilst travelling on duty are not deemed to be Commuting Injuries and are included within Lost Work Day Incident, Restricted Work Day Incident or Medical Treatment depending on the consequences of the accident.
Break in/Theft/Security breach	Break in/Theft/Security breach

18.3 Accident and Incident Investigation

The Contractor shall have in place a system for the investigation and analysis of incidents and accidents, whose focus should be on the identification of root causes. The Employer may request to be involved in any investigation depending on the nature of the incident.

The Contractor shall share all details and reports relating to an investigation on incident conducted on project activity and issue an interim report(s) if the investigation is likely to take longer than two weeks.

18.4 Audits and Inspections

The Project HSE Plan shall confirm the Contractor programme for audit and inspection for the duration of the contract.

As a minimum the Contractor shall undertake the following:

- Daily walkthrough of the common areas and task specific activities – this shall be based on risk;
- Weekly Inspections of the common areas and task specific activities – this shall be documented;
- Monthly Audits to determine compliance to legal and other requirements and conformance to the Project HSE Plan and other Contractor procedures – this shall be documented; and
- Focused Audits where safety performance dictates its requirement.

Documented inspections / audits shall ensure issues are identifiable and corrective and preventive actions detailed. Upon request, the documentation shall be available to Employer.

The Contractor shall supply samples of the above inspections and audits as part of their Project HSE Plan submittal.

In addition, the Contractor shall facilitate the following:

- Employer shall periodically audit or inspect Contractor work activities and expect Contractor representatives to accompany them on such audits and shall allow Employer full access to sites along with project documentation, including statutory registers, documents etc. The minimum frequency of these audits shall be monthly with a reasonable request submitted by Employer.
- Employer may also target specific audits and inspections with minimal notice following trends in safety performance.

18.5 Business Continuity Plan

The Contractor shall have a Business Continuity Plan that sets out the arrangements to be taken after a significant event to ensure ongoing delivery of the works. This shall be submitted to the Employer for review a minimum of one month prior to works commencement date.

18.6 Business Recovery Plan

The Contractor shall have a Business Recovery Plan sets out the arrangements to be taken after a significant event that has impaired its ability to deliver the works. This shall be submitted to the Employer for review a minimum of one month prior to works commencement date.

18.7 Evaluation of Legal Compliance

The Contractor shall have a process for evaluating and reporting on its level of legal compliance.

The Contractor shall submit to the Employer an annual summary of its health, safety and environmental legal compliance. This shall be in the form of a matrix listing applicable legislation and descriptions of how they comply.

18.8 Health Surveillance

Where any risks to health are identified through the risk assessment process (e.g. noise, vibration), the Contractor shall implement a health surveillance system to establish a relevant physiological baseline and monitor trends through periodic monitoring e.g. hearing tests.

18.9 Key Performance Indicators

The Contractor shall monitor and report on a range of leading and lagging HSEQ indicators on a monthly basis (ref. section 6.3 Project Key Performance Indicators (KPIs)). A different reporting frequency may be agreed if the Employer and Contractor both agree during the Kick Off meeting.

18.10 Lessons Learned

Either as part of or, in addition to any audit, inspection or investigation, the Contractor shall conduct 'Lessons Learned' sessions at reasonable points in time throughout the performance of the works. The following instances may prompt a 'lessons learned' session:

- Following a project milestone or phase;
- Following a particular operation;
- Following a perceived shift in performance levels;
- Following an audit;
- Following and inspection; and
- Following an investigation.

18.11 Management of Change

The Contractor shall have a management of change procedure. This shall clarify:

- The criteria for formally raising a management of change process;
- The authority levels for taking a decision; and
- The assessment of financial, technical, Health and Safety, Environment, and schedule/programme aspects of the proposed change.

18.12 Performance Monitoring

In addition to any agreed key performance indicators, the Contractor shall ensure it has a system in place for monitoring the performance of all works under its control. The system shall include methods and tools for reviewing ongoing work.

These reviews may include (but not limited to) the following:

- Formal audits of the Contractor or its sub-suppliers / Suppliers (in conjunction with the Contractor);
- Reviews of documentation generated in accordance with the requirements of the contract; and
- Evaluation of records generated to demonstrate conformance to contract requirements.

The Contractor shall be responsible for the specification and implementation of all arrangements and obligations necessary to complete the Scope of works / Services. However, given reasonable notice the Employer shall have the right to inspect, monitor, and audit the Contractor's / sub-Contractor's provisions to ensure they meet all requirements of the Scope of works /Services. Such inspection, monitoring, or audit by the Employer shall not diminish the Contractor's responsibilities and / or liabilities in any respect.

The Contractor shall submit to Employer on a monthly basis a breakdown of the hours worked on the project and other key performance indicators. The submittal shall be emailed to Employer Representative utilising the Employer email form that will be sent to the Contractor. Employer shall inform the Contractor as to the actual dates for submittal, however all submittals are to be received by the 4th of each month.

Employer record forms to be adopted for reporting and submitted to the Contractor. The submittal will be provided, as a minimum, as follows:

- No. of total hours worked (Project)
- No. of hours worked (on a monthly basis);
- Administration Hours (Office hours)
- Operative Hours (Operational hours)
- Supervision / Management Hours
- No. of worksite personnel assigned to the contracted job (on a monthly basis);
- Lost Time Injury Frequency (LTIF) on a monthly basis (LTIF= number of injuries/man hours worked);
- TRIR: Total Recordable Injury Rate;
- No. of days out of work as a consequence of Lost Time Accidents (on a monthly basis);
- No. of dangerous/potentially dangerous occurrences (on a monthly basis);
- No. of vehicle Accidents and No. of trips per month;

- No. of HSE meetings, emergency drills and exercises (on a weekly basis) with or without the Employer presence;
- No. of drug and alcohol tests
    - Number of positives
    - Number of negatives.
- Emissions to the atmosphere, in terms of tons of CO2eq;
- Tons of wastes produced and disposed to a landfill, divided into Hazardous and non-hazardous (on a monthly basis);
- Energy consumption (kWh/month);
- Water consumption and waste water disposal (m3/month).

Contractor shall issue the following types of reports to Employer:

- HSEQ daily report;
- HSEQ weekly report;
- HSEQ monthly report;.
- HSEQ Close Out Report.

The HSE Close Out report shall contain all the information listed above, covering the contract period.

Detailed content of the particular reports will be agreed during Kick off Meeting.

18.13 Reporting Non-conformities

The Contractor shall include in its Project HSE Plan, management arrangements for identification and management of non-conformities.

Where Employer detect any project works non-conformity or opportunity for improvement, a Non-Conformity Report (NCR) shall be raised to the Contractor.

An initial response to any NCR issued shall be responded to by the Contractor and returned to Employer within ten business days following issue date. Extensions to this time period may only be authorised in writing by Employer which will be documented on the NCR.

18.14 Reporting of Positive Behaviour

The Contractor shall ensure that it has a system for the positive reporting of behaviours. There may also be a requirement to participate in a project wide system.

18.15 Reporting of Unsafe Acts and Conditions

All involved in the works have both the right and the responsibility to report unsafe acts and conditions.

Where there is an immediate concern about the potential for harm to people or assets, people also have the right to stop the job and have the situation assessed.

The Contractor shall ensure it establishes a work culture where this happens and ensure that all reports acted upon.

18.16 Safety and Environmental Observations

The Contractor shall proactively engage and participate in any project-wide safety observation reporting initiative implemented by Employer.

Employer shall provide training to the Contractors' health and safety personnel in the operation of the initiative.

As part of project meeting, the Contractor shall be prepared to review and discuss SORs raised that week or those which remain open and also participate in the review of trends that may be developing.

19. Improvement

19.1 Continual Improvement

The Contractor shall demonstrate a commitment to continual improvement of its systems and performance.

This shall be in the form of an annual summary of performance and associated improvement plan to be issued to the Employer.

19.2 Non-Conformity and Corrective Action

The Contractor shall operate an improvement management system that includes the relevant tools required to manage non-conformities, non-conformances, risk-based actions and corrective actions.

The Contractor shall include in their Project HSE Plan, management arrangements for identification and management of non-conformities.

Where Employer detect any project works non-conformity or opportunity for improvement, a Non-Conformity Report (NCR) shall be raised to the Contractor.

Any NCR issued shall be responded to by the Contractor and returned to Employer within ten business days following issue date. Extensions to this time period may only be authorised in writing by Employer which will be documented on the NCR.

If issues are identified, which may affect conformity of products or services being provided, the Contractor shall provide the Employer with details, including plans and reports, and shall demonstrate effective actions to resolve those issues and any potential further issues resulting from the finding within an agreed timescale.

Where the issue is found at sub-contract level then the Contractor shall provide the Employer with the same level of details.

The Employer reserves the right to propose corrective action on the Contractor for any failure to comply with the requirements of the contract or the Contractor's own defined management systems. Furthermore, observations may be raised on a risk basis, where the Employer considers action is required to prevent a nonconformance.

The Contractor shall be responsible for agreeing accuracy of the reports and shall agree a timescale for resolution of any findings. Failure to rectify corrective and risk-based action reports within the agreed timescale may lead the Employer to suspend the scope of works / services, under the relevant contract, until such time that the action reports are resolved.

20. HSEQ Deliverables

The Contractor shall provide the following non-exhausted list of documents as part of its scope of work tailored for the Project (the list of deliverables could be extended based on dedicated and specific requirements considering Contractor's scope of work):

Documentation	Reference section	Timing of delivery (prior to commencement of Works)
Project Quality Plans	6.5.1	8 weeks and upon each revision
Inspection Test and Audit Plan	6.5.2	8 weeks and upon each revision
Project HSE Plan	6.5.3	8 weeks and upon each revision
Safety and Health Protection Plan for construction works	6.5.4	at least 3 months and upon each revision
Environmental Management Plan	6.5.5	8 weeks and upon each revision
Emergency Response Plan	6.5.6	8 weeks and upon each revision
Emergency Response Cooperation Plan (ERCoP)	6.5.7	8 weeks and upon each revision
MSRA Register	6.4.1	8 weeks and upon each revision
Fire Risk Assessment	16.12	8 weeks and upon each revision
Competence Matrix	7.3	8 weeks and upon each revision
Training Matrix	7.4	8 weeks and upon each revision
Waste Management Program	8.2	8 weeks and upon each revision
Waste register (in Excel format).	8.2.6	8 weeks and upon each revision
First Aid Risk Assessment	14.2	8 weeks and upon each revision
Lifting Schedule	16.19	8 weeks and upon each revision