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Soil Investigations Wind Farm Zones

Annex 6 - Section VI

Health, Safety and Environment –

IJmuiden Ver Wind Farm Zone

Colophon

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1 General requirements

1.1 Introduction

This document sets out CLIENTS requirements in respect of Health, Safety and Environmental (HSE) issues regarding the Geotechnical Survey (Lot 1 and Lot 2) of IJmuiden Ver.

This document should be regarded as the minimum standards, which the CLIENT requires in respect of HSE issues for all soil investigations to be carried out for the WIND ZONES in the Dutch EEZ.

1.2 Compliance with HSE policy

It is CLIENT's policy to manage all of its activities, including those which involve (sub-) contracted services, in a responsible and effective manner. The primary HSE objectives are:

- to ensure that the health and safety of all employees, contractors, sub-contractors and all members of the public are protected at all times;
- to ensure that any impacts on the environment are kept to the minimum level; and
- to ensure compliance with all applicable health, safety and environmental regulatory requirements.

The CLIENT requires that the CONTRACTOR'S HSE policy and procedures are compliant with CLIENT's HSE requirements as set out in this Section VI.

1.3 Compliance statutory provisions

The CONTRACTOR shall observe and comply with all relevant and current statutory requirements, approved codes of practice and industry guidance on HSE matters relevant to the WORK.

The CONTRACTOR shall ensure that all components of the WORK comply with all appropriate statutory acts and regulations including, but not limited to, the latest revisions applicable and according to Dutch Law.

The CONTRACTOR shall be responsible for ensuring that all of the CONTRACTOR'S personnel and all of the CONTRACTOR'S supply chain personnel, i.e. subcontractors, comply with all of the relevant HSE legislation and guidance.

2 HSE Management

2.1 HSE Management system

The CONTRACTOR shall be completely and exclusively responsible for the specification and implementation of all HSE arrangements and obligations and be in the possession of environmental permits required to complete the WORK as defined in Annex 6 - Section V (Scope of Work) and Technical Specification of this Contract.

The CONTRACTOR shall be responsible for all management of HSE processes to ensure full compliance with both statutory and procedural requirements.

The CONTRACTOR has implemented a valid and certified Health, Safety & Environment (HSE) management system which is certified to:

- VCA (SCC) and/or OHSAS 18001 and/or equivalent certificate regarding to health and safety management, for which the certificate(s) has been issued by an internationally recognized accreditation body; and
- ISO 14001 and/or equivalent certificate regarding to environmental management, for which the certificate(s) has been issued by an internationally recognized accreditation body.

2.2 HSE Management plan

The CONTRACTOR shall prepare a detailed Health, Safety and Environmental Management Plan (HSE Management Plan) covering both the major activities of the WORK as well as all other peripheral aspects of the Geotechnical Survey WORK. The HSE Management Plan shall be demonstrated to form an integral part of the CONTRACTOR'S own HSE management system.

The HSE Management Plan shall be prepared with inputs and critical assessment from all disciplines associated with the Geotechnical Survey WORK and shall include reference to appropriate risk assessments where applicable. The risk assessments will have identified all of the HSE risks together with appropriate mitigating measures to reduce the risks to an acceptable level.

The HSE Management Plan shall provide details of all key CONTRACTOR personnel in a clear and legible organization chart together with proposed interface and contracts with the CLIENT and any subcontractors.

The HSE Management Plan shall be updated throughout the duration of the project as required.

Prior to any work commencing, the original HSE Management Plan (as submitted with the original Offer) shall be updated to reflect the confirmed WORK scope, defined roles and responsibilities and nominated personnel and resources to complete the WORK.

The CONTRACTOR shall ensure that the HSE Management Plan is approved by the CLIENT at least three days before the Start of Mobilisation as defined in the CONTRACT, and that any subsequent amendments to it by the CONTRACTOR is notified to the CLIENT. CONTRACTOR shall allow sufficient time for review and revision, taking into account the review periods detailed in Annex 6 - Section VII (Quality Requirements & Administrative Instructions) of the Contract.

The HSE Management Plan shall, as a minimum, address the requirements that are set out in Chapter 3 of this Section VI document.

2.3 Method statements

The CONTRACTOR shall prepare detailed Method Statements for all routine aspects of the WORK. The Method Statements shall include appropriate risk assessment and always assign maximum priority to the health and safety of personnel involved directly or indirectly with the WORK. The Method Statements shall also address risks and mitigation measures to avoid any negative impact on the environment.

Should tasks be executed during the WORK that are not covered by the Method Statements, an appropriate Job Hazard Analysis (JHA) must be carried out. The JHA must be documented, signed and discussed by all personnel involved in the task. The JHA must detail the tasks at hand, associated risks and actions to be taken to reduce the risk to an acceptable level in accordance to the As Low As Reasonably Practicable (ALARP) principle.

2.4 HSE Audits

The CLIENT (including all by CLIENT nominated representatives, either or not from third parties) reserves the right to inspect, monitor and audit the CONTRACTOR's HSE provisions and procedures in the execution of the WORK. The CONTRACTOR agrees to give unrestricted access to CLIENT personnel to undertake such inspections and audits. Any inspection, monitoring or audit undertaken by the CLIENT shall not diminish the CONTRACTOR's responsibilities or liabilities in respect of this contract.

3 HSE Requirements

3.1 Organization, Roles and responsibilities

CONTRACTOR shall ensure that the HSE organization is clearly defined. The responsibilities must be clearly identified, with appropriate resources allocated to implement the HSE requirements. CONTRACTOR's personnel must be competent to conduct their assigned activities and should receive sufficient training to maintain their skills and competencies. The competences of the personnel must be regularly assessed. HSE matters shall be effectively communicated throughout the organization, and to the CLIENT, when applicable.

The HSE organization of the CONTRACTOR shall comply with the following:

- HSE accountabilities of staff and subcontractors must be identified, defined, documented, maintained, understood, and applied;
- HSE awareness, competencies, and performance shall be assessed when recruiting staff;
- Staff and subcontractors shall be consulted on HSE matters and included in related decision making, as appropriate;
- Inductions addressing relevant HSE objectives, hazards, risks, controls, and behavior shall be organized for staff, subcontractors, and visitors;
- HSE competences required for all positions shall be identified, documented, and periodically reviewed;
- Training needs and performance for staff and subcontractors shall be identified, prioritized, planned, documented, and monitored;
- Competence-based training programs and assessments for positions where critical HSE tasks / activities have been identified shall be implemented;
- Relevant HSE issues shall be communicated to personnel on a regular basis; and
- Internal and external complaints related to HSE aspects shall be recorded, acknowledged, and investigated as incidents.

3.2 Occupational Health and Safety

CONTRACTOR shall ensure that personnel, including the personnel of subcontractors where appropriate, are fit to perform their required duties and that appropriate controls are in place to provide protection from the health and safety hazards associated with the Geotechnical Survey WORK.

- Occupational health and safety requirements shall be identified, documented, communicated, monitored, and complied with on all levels;
- Where appropriate, staff and subcontractors shall undergo assessment to ensure their fitness for the Geotechnical Survey WORK;
- A complete list of personnel, health and safety certificates, including but not limited to all relevant training and medical certificates, shall be maintained.
- Occupational health and risk assessments shall be conducted for routine and non-routine jobs, tasks, and work environments where there is a known risk of health and safety hazard exposures to staff and subcontractors;
- Where health and safety hazards are identified, controls shall be established and maintained to protect staff and subcontractors from those hazards;
- Where the application of controls has not adequately reduced exposure, personal protective equipment requirements shall be identified and communicated and appropriate training shall be provided;

- Properly maintained personal protective equipment (PPE), where required, shall be provided and made available to staff and subcontractors;
- Compliance with (and the effectiveness of) PPE requirements shall be regularly assessed;
- Staff, subcontractors, and visitors shall have access to adequate medical and first aid services, as appropriate, to the location and nature of the activities; and
- Geotechnical Survey WORK related injuries and illness shall be recorded, reported, assessed and reviewed.

3.3 Incident Notification, Investigation and Reporting

Incidents shall be reported in a timely manner and summarized as part of weekly and daily reports when in offshore phase. Incidents shall be investigated for cause and corrective actions and analyzed for trending patterns. Effective, corrective and preventive actions, with a focus on root cause and / or system failures, shall be taken and lessons shared to reduce future injuries and losses.

The CONTRACTOR shall implement an incident notification, investigation and reporting procedure that shall comply with the following requirements:

- A procedure for the timely reporting, investigation, mitigation, and appropriate communication of all HSE incidents must be implemented and maintained;
- All incidents must be notified to the CLIENT in writing as soon as safe to do so. A draft incident report must be submitted within 24 hours;
- Incident investigations, including identification of root causes and preventive actions, shall be documented and closed-out;
- Incident investigations shall identify and prioritize corrective and preventive actions and must be aimed at eliminating or reducing the risk of incidents;
- In the event of a major incident the Geotechnical Survey WORK shall not resume until actions have been taken to reduce the risk of recurrence, and authorization is given by the CLIENT;
- Information gathered from incident investigations shall be analyzed to identify and monitor trends to improve standards, systems and practices;
- Lessons learned must be kept in a lessons-learned register and shared across the CONTRACTOR and CLIENT organizations and with other interested parties, as appropriate; and
- Major incidents shall be investigated by a multi-disciplinary team with participation from appropriate levels of management from both CONTRACTOR and CLIENT organizations.

3.4 Emergency response

The CONTRACTOR shall prepare a separate Emergency Response Procedure (ERP) for the offshore phase of the Geotechnical Survey WORK. The ERP details the procedures and the organisation to effectively respond to crisis and emergency situations to protect staff, interested parties (e.g. Coastguard, 3rd asset parties, fishery), and the environment. Threats and risks to personnel, works, and the environment shall be identified and actions and safeguards implemented to manage them.

The ERP shall comply with the following requirements:

- the ERP shall act as a bridging document between any individual organization emergency response procedures and the specific ERP prepared for executing the WORK and shall have a clear order of preference over any other emergency response procedure documents, which are referenced;
- All organizations identified in the ERP shall have current and up-to-date versions of the procedure. The ERP will be assessed and if necessary updated every crew change and when requested by the CLIENT;
- The ERP is a live document and shall be reviewed regularly to ensure all information and contact details are up-to-date;
- All potential incidents, emergency situations, and security threats along with their HSE impacts shall be identified;
- Controls appropriate and practicable for the levels of risk assessed to the activities shall be implemented;
- Plans that define responses to foreseeable scenarios shall be documented, accessible and communicated;
- Roles, responsibilities and authorities for staff and subcontractors in responding to emergencies and security threats shall be clearly documented, communicated and understood;
- All necessary emergency services contacts such as local hospitals, coastguard etc., as well as the principal contacts, with all relevant contact information for all organizations involved directly or indirectly with the WORK, and details of the CONTRACTOR'S representatives shall be included;
- Regular emergency drills and exercises shall be carried out. As a minimum, an abandon ship muster drill shall be undertaken before commencement of any geotechnical work;
- Personnel shall be adequately trained to both understand the regulatory requirements and apply the necessary controls and preventive measures as described in the Plans;
- Lessons from emergency and security response drills, exercises, and incidents shall be documented, communicated, and incorporated into plans and resources; and
- The CONTRACTOR shall comply with all government and maritime security regulations.

The CONTRACTOR shall ensure that the ERP is approved by the CLIENT at least one week before the offshore Geotechnical Survey WORKS under the CONTRACT is commenced, and that any subsequent amendment to it by the CONTRACTOR is notified to the CLIENT.

CONTRACTOR shall allow for sufficient time for review and revision taking into account the review periods as detailed in Annex 6 - Section VII (Quality Requirements & Administrative Instructions).

3.5 Risk management

Risk management includes all processes and activities to identify, analyze and control project risks.

CONTRACTOR shall identify hazards and assess associated risks. The risk management processes shall form an integral part of decision making and are documented, with appropriate action taken to manage risks to a level that is tolerable and as low as reasonably practicable (ALARP).

The risk management process of the CONTRACTOR shall comply with the following requirements:

- A procedure for identifying, evaluating, and prioritizing hazards and risks shall be implemented;
- Formal risk assessments are planned and conducted before and, if required, during execution of the Geotechnical Survey WORK;
- Risks that have been identified shall be logged in a project specific risk register which includes a risk matrix which clearly indicates the classifications of risks in terms of probability and effect;
- HSE critical elements are identified (e.g. equipment, processes, personnel, procedures);
- Staff and subcontractors involved in risk assessments shall be trained and qualified;
- Reporting and documentation requirements for risk assessments and risk management are defined and executed effectively and in a timely manner;
- Risks and control measures are communicated to relevant parties;
- Responsibilities and deadlines for corrective actions are established to ensure timely close-out of risk-related follow-up actions; and
- The results of risk assessments are considered in the preparation and review of emergency response plans and procedures.

3.5.1 *Risk register*

The CLIENT and the CONTRACTOR shall co-operate at all times in seeking to reduce the potential impact of risks and to exploit opportunities to avoid or mitigate risks during the execution of the Geotechnical Survey WORKS.

In addition to the CONTRACTOR adhering to their own risk management procedures, the CONTRACTOR shall compile and maintain a risk register for the Scope capturing all risks and opportunities that may impact on:

- Health and Safety;
- Security;
- Environment;
- Schedule;
- Cost;
- Quality; and
- Reputation.

The CONTRACTOR shall submit an up-to-date version of the risk register to the CLIENT upon request or at least weekly. CONTRACTOR shall issue an update of the risk register that was issued with the CONTRACTORs Proposal during the tender phase with the first draft of the Project Execution Plan.

The risks are defined in the risk register and include at least the following information:

- Description of risk and its cause;
- Likelihood of occurrence;
- Impact of risk, split up into HSE, cost, time, quality etc.;
- Mitigation strategy and estimated additional cost of implementing mitigation strategy; and
- Residual likelihood and impact assessment of risk post mitigation.

3.5.2 *Risk Meeting*

Risks will be discussed on a regular basis during the progress meetings. At these meetings the CONTRACTOR and the CLIENT shall discuss and agree on changes to the Risk Register.

A Hazard Identification and Risk Assessment (HIRA) exercise shall be performed part of the pre-survey preparations and finalised prior to mobilisation. The HIRA shall form part of the HSE Management Plan and must be updated throughout the Project as appropriate.

3.6 Environmental Management

The CONTRACTOR shall identify environmental aspects and impacts from activities with measures taken to ensure that they are minimized and adequately managed.

The environmental management processes of the CONTRACTOR shall include:

- Identification and determination of the significance of environmental aspects and impacts of all activities;
- Monitoring procedures shall be established and initiatives developed to manage and improve environmental performance of significant aspects;
- A 'hazardous materials and substance database' shall be kept. The database shall document the type of material or substance, quantity, storage requirements and reference the associated material safety data sheet. The database must be kept up-to-date and must be available for sighting offshore;
- Pollution prevention and waste minimization procedures shall be developed, implemented and maintained to eliminate, reduce, reuse, recycle, treat, or appropriately dispose of waste;
- Documentary evidence shall be maintained to demonstrate that hazardous waste has been managed in a responsible and appropriate manner; and
- Environmental wastes, discharges, and emissions shall be identified, monitored and reported, where appropriate, to ensure compliance with regulatory requirements.

3.7 Vessels crew and equipment

3.7.1 Rules & regulations

Any vessels and crew deployed by CONTRACTOR and/or subcontractors shall comply with relevant Flag State rules and regulations and shall comply with IMO conventions (for example SOLAS, ISM, MARPOL and STCW). This shall be substantiated with valid certificates for vessels, crew and (anchoring-, crane-, lifting-, lifesaving-, firefighting-, etc.) equipment. Certificates shall be valid until 3 months after end of the Offshore Geotechnical Survey WORKS, at a minimum.

3.7.2 Condition of vessel and equipment

CONTRACTOR shall ensure that all equipment, machinery, etc. being applied by CONTRACTOR and subcontractors to carry out the Geotechnical Survey WORKS, is in good condition, safe to use and is fit for purpose; this shall be fully documented and checked frequently.

3.7.3 Accommodation and welfare facilities

For marine accommodation and all vessels deployed for the Offshore Geotechnical Survey WORK, CONTRACTOR shall provide adequate welfare facilities as required by flag state, national and international maritime legislation. This shall include sanitary and washing facilities. Facilities for rest, food preparation, accommodation clothing storage and drinking water provision shall also be provided by CONTRACTOR. This shall be fully provided prior to any works commencing at the site.

3.7.4 Suitability of vessels and equipment

The CONTRACTOR will use suitable vessels for the Offshore Geotechnical Survey WORKS, with maximum working limits to operate in the North Sea on the basis of the prevailing weather conditions as defined in Section IV - Remuneration.

3.7.5 Vessel inspections

CLIENT requires a recent independent and representative vessel inspection report to be available for each vessel that will be used, proving that the vessel, crew and equipment complies with all above requirements and is 'fit for purpose' and 'safe to use'. The inspection report shall not be older than six (6) months at the Start of Mobilisation.

The inspection report shall be issued to CLIENT two (2) weeks before Start of Mobilisation.

CLIENT reserves the right to carry out an additional inspection before Start of Mobilisation (by independent 3rd party). CONTRACTOR shall notify CLIENT with a notice of at least two (2) weeks in advance on an appropriate moment for a possible additional inspection. If this inspection concludes that the vessel, crew and or equipment are not compliant with the above, CLIENT will not allow the CONTRACTOR to start the work until the issues have been resolved. Any costs resulting from non-compliance will be for the account of the CONTRACTOR.

All vessel inspections will be carried out by a competent, independent and experienced assessor who has a Seagoing Qualification at Management level or appropriate qualification for the marine equipment type.