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Status Final

# Soil Investigations Wind Farm Zones

# Annex 5 - Section V

# Health, Safety and Environment Geophysical Survey

# Hollandse Kust (west) 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.

This document sets out the minimum standards, which The CLIENT requires in respect of HSE issues for the 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 objectives are:

- to ensure that the health and safety of all employees, subcontractors 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.
- 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 V.

## 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, which are necessary to complete the WORK as defined in Section IV – 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 shall be have a HSE management system in place that is certified with:

- OHSAS 18001 or equivalent for safety management
- ISO 14001 or equivalent for environmental management

The HSE management system of CONTRACTOR shall address the following subjects (as per International Safety Rating System of DNV-GL):

Strategy and Policy

1. Leadership

Planning

2. Planning and Administration
3. Risk Evaluation
4. Human Resources
5. Compliance Assurance
6. Project Management

Implementation and operation

7. Training and Competence
8. Communication and Promotion
9. Risk Control
10. Asset Management
11. Subcontractor Management and Purchasing
12. Emergency Preparedness

Monitoring and measurement

13. Learning from Events
14. Risk Monitoring

Management review

15. Results and Review

## 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 aspects of the 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 WORK and shall include reference to appropriate risk assessments where applicable. Such risk assessments will have identified all of the Health & Safety risks together with any mitigating measures to reduce such 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 regularly updated throughout the duration of the project as required.

Prior to any work commencing on the project, the original HSE Management Plan (as submitted with the original Offer) shall be updated to reflect the confirmed WORK, 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 one week before the work 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 detailed in Section VII of the Contract.

The HSE Management plan shall, as a minimum, address the requirements that are set out in chapter 3 of this Contract Section V.

## 2.3 Method statements

The CONTRACTOR shall prepare detailed Method Statements for all aspects of the WORK and such Method Statements shall include appropriate risk assessment and always assign maximum priority to the health and safety of those involved directly or indirectly with the WORK and on avoiding any impact on the environment.

## 2.4 HSE Audits

THE CLIENT (including all by CLIENT nominated representatives, either or not from third parties) reserves the right to inspect, monitor or audit the CONTRACTOR's HSE provisions and procedures in the execution of the WORK. The CONTRACTOR agrees to give unrestricted access to CLIENT personnel (or nominated representatives) 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 ensures that: the HSE organization is clearly defined; responsibilities are clearly identified, with resources commensurate with implementing 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 for 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;
- 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 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 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, where required, shall be provided and made available to staff and subcontractors;
- Compliance with (and the effectiveness of) personal protective equipment 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;
- Work related injuries and illness shall be recorded, reported, assessed, and reviewed;
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### 3.3 Incident Notification, Investigation and Reporting

Incidents shall be reported in a timely manner and summarized as part of weekly reports (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;
- 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 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 learnt register and shared across the CONTRACTOR and CLIENT organizations and with other interested parties, as appropriate;
- Major incidents shall be investigated by a multi-function team with participation from appropriate levels of management from both the CONTRACTOR and the CLIENT organizations.

### 3.4 Emergency response

The CONTRACTOR shall prepare an Emergency Response Procedure (ERP) for the offshore phase of the WORK. The ERP details the procedures and the organisation to effectively respond to crisis and emergency situations to protect staff, interested parties, 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 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 documented, communicated, and understood;
- All necessary emergency services contacts such as local hospitals, coastguard etc., as well 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 detailed;
- Regular emergency drills and exercises shall be carried out;
- 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;
- The CONTRACTOR shall comply with all government and maritime security regulations;

The CONTRACTOR shall ensure that the Emergency Response Plan is approved by the CLIENT at least one week before the offshore 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 Contract Section VII.

### 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 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;
- 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 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
- Reputation

The CONTRACTOR shall submit an up-to-date version of the risk register to the CLIENT upon request. 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 HSSE, cost, time, quality etc.
- Proximity of risk impact (in time)
- Mitigation strategy and estimated additional cost of implementing mitigation strategy
- 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 changes to the Risk Register.

### 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;
- 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;
- 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 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 his subcontractors to carry out the WORKS, is in good condition, safe to use and is suitable for the 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 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 WORKS, with maximum working limits to operate in the North Sea on the basis of the prevailing weather conditions as defined in Section III - Remuneration.

### *3.7.5 Vessel inspections*

CLIENT requires a recent (as a guideline for vessels new to the project the inspection report should be no older than 3 months), 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 be issued to CLIENT 2 (two) weeks before start of the offshore WORK.

CLIENT reserves the right to carry out an additional inspection before start of work (by independent 3rd party). If this survey concludes that the vessel, crew and or equipment is 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 this will be for the account of the CONTRACTOR.

CONTRACTOR shall notify CLIENT with a notice of at least two weeks in advance on an appropriate moment for a possible additional inspection.

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.