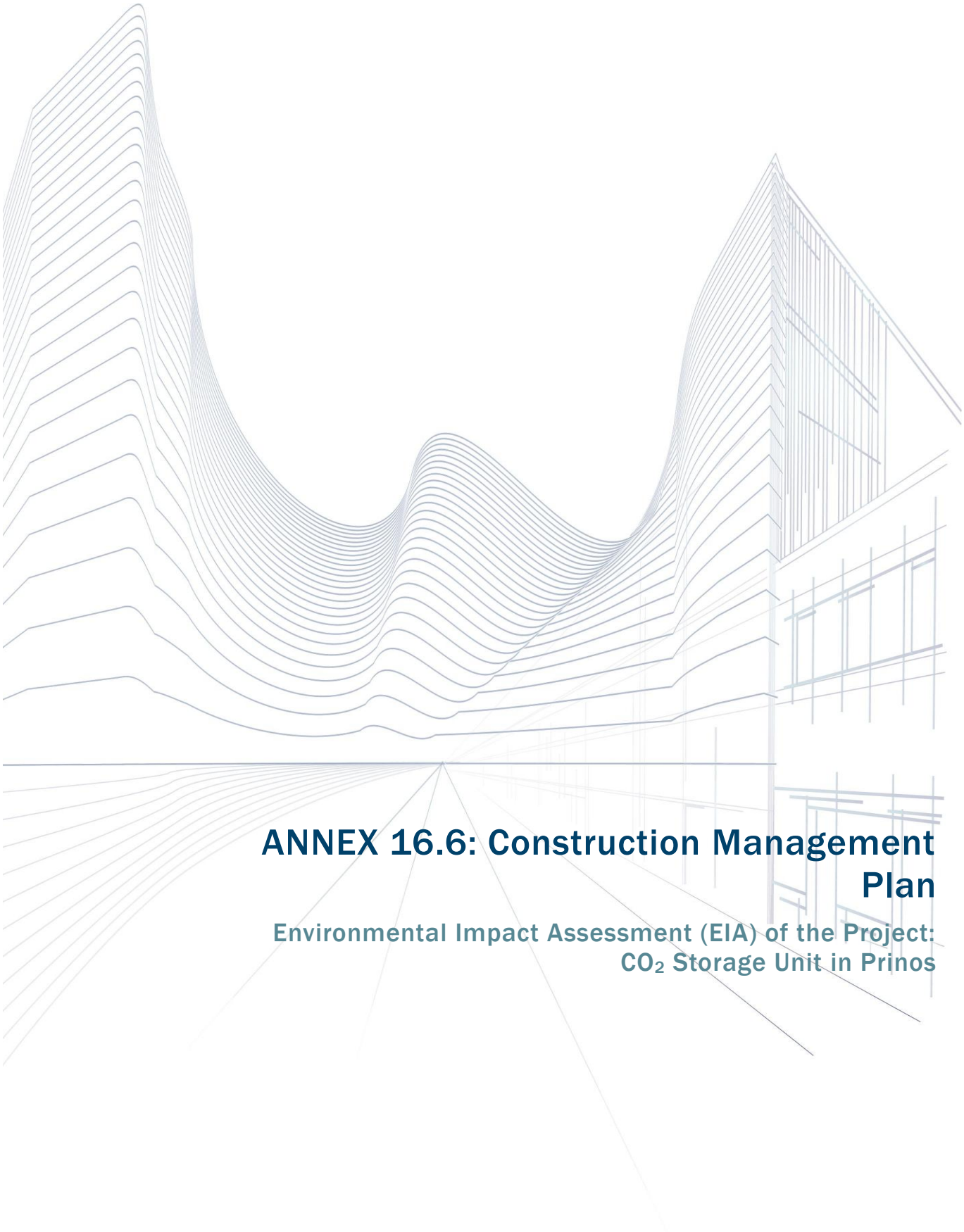

ANNEX 16.6: Construction Management Plan

Environmental Impact Assessment (EIA) of the Project: CO_2 Storage Unit in Prinos

LDK CONSULTANTS

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Project	CO_2 Storage Unit at Prinos		
STUDY PHASE	Waste Management Plan within the framework of the Environmental Impact Assessment (EIA)		
STUDY CODE	CCP - 2902		
DATE	25.11.2024		
VERSION	v.01		
REVISION	v.01		
ENVIRONMENTAL CONSULTANT	LDK CONSULTANTS A.E. – WSP SA		
PROJECT ENTITY	ENEARTH GREECE		
DERIVATION	Study Team LDK – WSP		
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APPROVAL	Vasilis Tsetoglou Health, Safety and Environment (HSE) Manager		
PROJECT ENTITY REPRESENTATIVE	Katerina Sardi, Chief Executive Officer – Country Manager	ENEARTH GREECE ΜΟΝΟΠΡΟΣΩΠΗ Α.Ε ΛΕΩΦ.ΚΗΦΙΣΙΑΣ 32 - ΜΑΡΟΥΣΙ Τ.Κ. 151 25 ΤΗΛ. 210 81 74 200 – FAX. 210 81 74299 ΑΦΜ: 802522310 – ΔΟΥ ΚΕΦΟΔΕ ΑΤΤΙΚΗΣ	

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1 INTRODUCTION

The Construction Management Plan describes the risk mitigation measures and commitments, defines responsibilities, and sets the schedule for monitoring, inspection and implementation concerning the construction activities of the CO_2 storage Project in Prinos.

The Project under study is a full-scale CO_2 storage facility in Prinos (the "Project"). The planned CO_2 storage site is located within the Prinos basin, in the Gulf of Kavala, in the Northeastern Aegean Sea. The area of interest for CO_2 storage lies within the Prinos Concession, where Energean Oil & Gas SA ("Energean"), an affiliated company of EnEarth, holds 100% of the interests and management rights for oil and gas exploration and production activities since 2007. The examined CO_2 storage location is situated within the Prinos structure and the underlying aquifer.

The operation of the facility is planned to be developed in two distinct phases (Phase 1 and Phase 2), for reasons of scalability and adaptation to market conditions.

During the construction phase of the Project, the following activities will be carried out:

- Structural works and site preparation, installation of CO2 reception and handling equipment at the onshore Sigma facilities.
- Installation of buried CO2 transport pipelines (one onshore pipeline section and one offshore pipeline).
- Construction of CO2 injection wells and water production wells.
    - Delivery and installation of drilling rig
    - Preparation of existing starter well (installation of permanent mechanical barrier and preparation for sidetracking)
    - Drilling of 16" diameter well to a depth of approximately 2,200 m
    - Drilling of 12-1/4" x 13½" diameter well to a depth of approximately ±3,150 m
    - Drilling of 8-1/2" diameter well to a depth of approximately ±3,700 m

The pipeline construction works will be carried out in five phases:

- **Phase 1:** Geophysical and geotechnical surveys along the pipeline route (1 month)
- **Phase 2:** Shore approach works for the pipeline, including dredging of a 500 m section from the shoreline at the pipeline head area near the Sigma plant. The trench will be approximately 3 m deep along its entire length and will taper off to seabed level at the end of the 500 m zone (6 months).
- **Phase 3:** Installation of the subsea pipeline and hydrotesting using a specialized pipe-laying vessel (2–3 weeks).
- **Phase 4:** Installation of the riser on the existing Beta platform and diver-assisted operations to connect the riser to the end of the subsea pipeline (1 week).
- **Phase 5:** Final commissioning and testing (1 month).

The planned equipment will be prefabricated off-site and delivered to the construction site by trucks, where it will be offloaded using a crane.

Before the start of construction works and for the determination of the final pipeline route, a series of geophysical and geotechnical surveys will be carried out, in accordance with standard industry practices.

Regarding the construction phase, the Contractor is required to develop their own Environmental and Social Management and Monitoring Plan (ESMMP), which will define how they intend to comply with specific obligations and mitigation measures for the Project's impacts, in accordance with the Health, Safety and Environment (HSE) policy and standards of EnEarth.

2 SCOPE OF THE PLAN

The Construction Management Plan is prepared to describe the necessary risk mitigation measures to ensure the prevention of any adverse impacts on the environment and health and safety, focusing on the general issues related to the construction of the Project or, if this is not possible, to ensure their reduction in terms of scale and significance.

The objectives of the Management Plan are to ensure that any construction activities carried out as part of the Project comply with EnEarth's Health, Safety and Environment (HSE) Policy, national legislation and best international practices, in order to prevent potential environmental damage and to ensure the highest possible level of health and safety protection.

More specifically, the Construction Management Plan aims to:

- Describe how EnEarth will monitor and review the Contractor's performance throughout the construction phase.
- Define the roles and responsibilities of the Contractor.
- Ensure environmental protection at the highest possible level.
- Ensure high standards of working conditions and assist the Contractor in identifying potential risks associated with the work processes and in taking appropriate measures to mitigate those risks.
- To anticipate and prevent potential environmental damage or damage to third-party property resulting from construction activities.

3 ROLES AND RESPONSIBILITIES

3.1 PROJECT MANAGEMENT

The Project Management Team of EnEarth will collaborate with the Contractor and coordinate the Contractor's activities to meet the Project's schedule requirements and corporate policies.

The Contractor shall prepare and coordinate the delivery of reports/plans and information requested by the Project Management Team in order to support the overall planning and risk management for the construction of the Project. The Project Management Team will coordinate the Contractor's activities on site.

The Contractor will be required to provide regular updates regarding its activities, in coordination with the EnEarth Project Management Team, in accordance with the responsibility matrix outlined in the following paragraph (Table 3-1). A detailed organizational chart for the Project will be developed during the construction phase.

The Contractor will be responsible for providing all calculations, reports, diagrams, and procedures for the scheduled construction activities of the Project. Additionally, detailed lists of materials and specifications will be required. The construction work specifications will cover at least the following:

- Layout and preparation of storage areas for raw materials and construction materials, including requirements for facilities, equipment, space and storage.
- Equipment specifications.
- Welding method specifications
- Specifications for the construction and installation of the subsea pipeline ("S-lay," trenching).
- Worksite methods and HSE (Health, Safety, and Environment) plans, in compliance with EnEarth's safety and health policies, including waste management.
- Engineering analyses to support all construction activities
- Preparation of offshore procedures and methods
- Hydrostatic test specifications
- Implementation of safe work/lifting procedures, safety-related matters
- Participation in risk assessments.

The following Table defines the proposed responsibilities of the Construction Contractor and the EnEarth Construction Management Team:

Table 3-1: Responsibilities

Activity	Contractor	Team Management of EnEarth
Overall project management and implementation of company/project standards and procedures	Inflow	Responsible
Location of temporary storage areas	Inflow	Responsible
Preparation of storage procedures	Responsible	Inspection / Inflow

Activity	Contractor	Team Management of EnEarth
Risk assessments / hazard identification meetings, risk mitigation measures and control procedures	Inflow	Responsible
Welding procedures, Inspection and Testing Plans (ITPs)	Responsible	Inspection
Construction and installation procedures for the subsea pipeline ("S-lay", trenching)	Responsible	Inspection
Quality Assurance and Quality Control (QA/QC)	Inflow	Responsible
Procedures for offshore operations	Responsible	Inspection / Inflow
Procurement of pipelines/flanges	Inspection	Responsible
Procurement of installation equipment/temporary equipment and personnel for pipeline welding	Responsible	Inspection
Procurement of hydrostatic testing equipment	Responsible	Inflow
Procurement of equipment for vessels, tugboats, and support boats	Inflow	Responsible
Procurement and management of equipment/services for installation monitoring	Inflow	Responsible
Restoration of temporary storage areas to their original condition	Responsible	Inflow
Construction drawings	Responsible	Inspection

3.2 ROLES AND RESPONSIBILITIES OF ENEARTH

The roles and responsibilities of EnEarth personnel in relation to the Construction Management Plan are as follows:

- Project Execution Manager – responsible for the execution of the Project.
- Drilling Manager – responsible for the construction of new wells..
- Offshore Installation Manager – responsible for new constructions and modifications of the facilities on the Beta and Delta platforms.
- Project Management / Pipeline Engineer – responsible for the installation of the pipelines.
- Storage Yard Quality Assurance / Control Manager – responsible for ensuring and controlling the quality of welding methods and procedures applied by the contractors
- Project Health, Safety, and Environment (HSE) Coordinator – responsible for conducting inspections of the Contractor's safe practice methods in accordance with EnEarth's HSE Management Systems and monitoring discussions on health, safety, and environmental management issues at the facilities.
- Project Supply Chain Coordinator – organizes procurement for the Project construction
- Project Marine Coordinator – organizes maritime support services.

The evaluation of the Contractor's General Construction Management Plan for the Project will be carried out by the Construction Supervisor with the assistance of EnEarth's HSE Manager.

Before the start of construction, EnEarth's Project Management Officer will forward the Construction Management Plan to the Contractor.

EnEarth will provide any required permits and approvals for the construction works to the Contractor in order to finalize the Project's General Construction Management Plan

3.3 ROLES AND RESPONSIBILITIES OF THE CONTRACTOR

The Contractor must comply with all National, European, and International regulations regarding environmental standards and health and safety requirements at the workplace.

The Contractor will be responsible for the proper setup of the onshore construction site and the organization and execution of the offshore operations, ensuring the implementation of all necessary measures for the protection of the environment, as well as the health and safety of personnel and the general public. In general terms, the Contractor will be entrusted with the following duties:

- The development and implementation of a General Construction Management Plan for the Project,
- The appointment of responsible personnel,
- The communication of the Management Plan to workers and subcontractors,
- Ensuring compliance,
- Establishing a communication line with the competent authorities, if necessary,
- Implementing effective supervision, including subcontractors,
- Submitting reports.

For this reason, the following specific tasks must be assigned:

- The Site Manager assumes the following duties:
    - Understanding EnEarth's HSE policy and HSE Management Plan.
    - Implementing the Management Plan.
    - Ensuring subcontractors' compliance with the Construction Management Plan.
    - Allocating responsibilities according to the site hierarchy.
    - In cooperation with the HSE Coordinator, confirming effective management and control of the site.
    - Ensuring that workers are trained in HSE matters and regarding the Construction Management Plan
    - Ensuring that all workers know how to implement risk mitigation measures.
- The Project Engineer is responsible for the following:
    - Understanding EnEarth's HSE policy and HSE Management Plan
    - Preparing HSE reports for their area of the project/ongoing activities.
    - Implementing the Construction Management Plan
    - Informing and training personnel on the provisions of the Construction Management Plan, first aid training, organizing emergency response teams, providing first aid, etc., for their area of the project/ongoing activities..
    - Ensuring suitable working conditions in compliance with health, safety and environmental legislation and the Construction Management Plan.
    - Supervising subcontractors' compliance with the Construction Management Plan and health, safety, and environmental regulations..

- The HSE Coordinator is responsible for the following:
    - Monitoring subcontractors' compliance with the Construction Management Plan and health, safety and environmental regulations..
    - Providing detailed instructions for the safe and proper implementation of the Construction Management Plan.
    - Being informed of every accident and participating in its investigation, proposing measures to prevent recurrence.
    - Updating the Project's HSE Logbook.
    - Conducting inspections to ensure procedures are followed and to assess their effectiveness.
    - Collecting information on all incidents and near-misses and participating in their investigation, reporting to the Project Manager.
    - In the event of an incident or near-miss, completing all documentation required by the procedures.

3.4 ROLES AND RESPONSIBILITIES OF SUBCONTRACTORS

Subcontractors must be aware of and comply with the duties or responsibilities defined by National, European and International regulations regarding health, safety and the environment

Before the start of construction, the Contractor, through the HSE Coordinator, must inform the Subcontractor of the specific requirements of the HSE Plan. The Subcontractor must appoint a representative with whom the Contractor can communicate regarding health, safety and environmental issues. The Subcontractor must ensure that all requirements stated in the Construction Management Plan are known and adhered to by their personnel.

4 PROJECT STANDARDS

The management of construction activities will be carried out in accordance with national and European legislation, as well as EnEarth's standards. More specifically:

- National legislation:
  - ✓ Law 3850/2010 (Government Gazette 84/A/2.6.2010): *"Ratification of the Code of Laws for the Health and Safety of Workers."*
  - ✓ Presidential Decree 305/1996: Establishing minimum safety and health requirements to be applied at temporary or mobile construction sites, in compliance with Directive 1992/57/EEC
  - ✓ Law 4042/2012: *On the criminal protection of the environment – Harmonization with Directive 2008/99/EC – Framework for waste generation and management – Harmonization with Directive 2008/98/EC.*
  - ✓ Law 4014/2011: Concerning environmental permitting for projects and activities.
  - ✓ Law 3028/2002: On the protection of antiquities.
- European legislation:
  - ✓ Directive 92/57/EEC on the minimum safety and health requirements to be applied at temporary or mobile construction sites..
  - ✓ Directive 89/391/EEC (Framework Directive) and Directive 91/383/EEC supplementing the measures aimed at improving the safety and health of workers at work.
- Law 2779/1999: *Ratification of the Agreement on the exploitation of hydrocarbons in the marine area of the Thracian Sea between the Hellenic Republic and the company KAVALA OIL S.A.* (Government Gazette A 296/30.12.1999), as amended and currently in force.
- EnEarth Standards:
  - ✓ HSE Policy,
  - ✓ HSE Management Plan.
  - ✓ Drilling Programs, which include drilling execution instructions along with safety guidelines and recommendations.

5 IMPLEMENTATION SCHEDULE

The work schedule for the new onshore and offshore facilities of the CO_2 storage Project is as follows:

Table 5-1: Work schedule

Works	Time
Onshore facilities: modification of a designated area within the existing premises at the Sigma plant for the construction of the manifold and an unloading and compression area.	3 months
Offshore pipeline: subsea pipeline connecting the Sigma plant area with the offshore Beta platform, approximately 20 km in length. The pipeline works will be carried out in several phases:	9 months
• Phase 1: Geophysical and geotechnical surveys along the pipeline route	1 month
• Phase 2: Works for the approach of the pipeline to the shore, including dredging of a 500 m long section from the shoreline, in the area of the pipeline head at the Sigma plant. The trench will have a depth of approximately 3 m along its entire length and will end at the seabed level at the end of the 500 m zone	6 months
• Phase 3: Installation of the subsea pipeline and hydrostatic testing using a specialized pipe-laying vessel	2 – 3 weeks
• Phase 4: Installation of the riser pipe on the existing Beta platform and diver operations to connect the riser to the end of the subsea pipeline	1 week
• Phase 5: Final commissioning and testing	1 month
Offshore platform: Modification of the existing offshore installations at Prinos for the reception of CO2 from the new subsea CO2 pipeline and injection into the new wells.	4 months
Wells: 2 CO_2 injection wells and 2 water production wells on the existing Beta platform of the offshore Prinos complex.	8 months

5.1 BEFORE THE START OF CONSTRUCTION

The implementation schedule of the Construction Management Plan before the start of construction is as follows:

Table 5-2: Construction Management Plan Implementation Schedule Before the Start of Construction

Activity	Schedule / Milestone
Appointment of the Contractor's and EnEarth's Responsible Officers	Before contract signing

Activity	Schedule / Milestone
Provision of environmental documents (EIA, approved environmental terms, Management Plans) to the Contractor	Immediately after the contract signing
Provision at the construction site of EnEarth's HSE Policy and HSE Management Plan	Immediately after the contract signing
Definition of the onshore construction site	Immediately after the contract signing
Designation of waste and chemical storage areas	Two months before the construction works
Estimation of quantities and sources of water (industrial and potable)	Two months before the construction works
Obtaining permits and approvals for construction works	Before the construction works
Establishment of a communication line between the Contractor and EnEarth	Before the construction works
Notification of the Construction Management Plan to the workers	Before the construction works

5.2 DURING THE CONSTRUCTION WORKS

The implementation schedule of the Construction Management Plan during the construction phase is as follows:

Table 5-3: Implementation Schedule of the Construction Management Plan During the Construction Phase

Activity	Schedule / Milestone
Fencing and signage of the onshore construction site	At the start of the construction works
Detailed schedule of drilling operations at the Beta platform	At the start of the construction works
Detailed schedule of construction works / equipment modifications at the Delta platform	At the start of the construction works
Detailed schedule of subsea pipeline construction works (Phases 1-5)	At the start of the construction works
All materials, equipment, machinery, and vehicles across the entire construction site are stored/parked in designated locations	Continuously
All areas must be kept clean from trash, waste materials and spilled substances (lubricants, fuels, etc.)	Continuously
Pressure gas tanks (used for welding and cutting work) must be stored together in one area, kept upright and fenced off	Continuously
The pipes must be properly placed and fenced off to prevent them from rolling or falling	Continuously
Vehicle and machinery maintenance	Continuously
Pollution prevention	Continuously
Proper handling and use of hazardous substances	Continuously
Proper management of waste and wastewater	Continuously

6 RISK MANAGEMENT AND MITIGATION CONTROLS

EnEarth and the Contractor have the following general obligations:

Table 6-1: General obligations of the Contractor and EnEarth

Obligation	Responsible	Means of verification
Obtaining all permits and approvals for the commencement of construction works	EnEarth (HSE Officer) Contractor (Site Manager)	Issuance of permits and approvals prior to the commencement of construction work
Communication of the Management Plan to the Contractor	EnEarth (Construction Supervisor)	Training records
The environmental documents (EIA, approved environmental terms, Management Plan) must be available at the construction site	EnEarth (HSE Manager) Contractor (HSE Coordinator)	Document availability
Provision at the construction site of the HSE policy and the HSE Management Plan of EnEarth.	EnEarth (HSE Officer) Contractor (HSE Coordinator)	Document availability

The following risk reduction and management measures are implemented:

Table 6-2: Risk reduction and management measures

Measure / obligation	Responsible	Means of verification
Fencing of the onshore construction site		
Specifications for the fencing: • Materials • Dimensions • Distance from the premises • Color • Signage	Contractor (Project Engineer)	List of specifications
Fencing of the site boundaries	Contractor (Site Manager)	Construction of fencing before the start of the works
Appropriate fencing for areas within the construction site: • Where personnel are exposed to hazards • Waste storage • Storage of hazardous substances	Contractor (Site Manager)	Construction of fencing before the commencement of the works
Signage of the construction site boundaries		
Specifications for signage	Contractor (Project Engineer)	List of specifications
Site Signage	Contractor (Site Manager)	Installation of signage before the commencement of the works
Signage near vehicle/machinery exit points on the construction site	Contractor (Site Manager)	Installation of signage before the commencement of the works

Measure / obligation	Responsible	Means of verification
Signage within the construction site indicating: • Prohibition (red) • Warning (yellow) • Mandatory actions (blue) • Emergency and medical information (green) • Fire-fighting measures (red)	Contractor (Site Manager)	Installation of signage before the commencement of the works
Utility networks		
Mapping of the utility networks affected by the onshore construction site	Contractor (Project Engineer)	Plans showing the utility networks
Application of the instructions for utility networks	Contractor (Project Engineer)	Supervision of the related works
Creation and implementation of a safety exclusion zone for offshore operations		
Specifications for signage (small markers): • Materilas • Dimensions • Position • Color	Contractor (Project Engineer)	List of specifications
Sanitary facilities		
The construction site will have sufficient and appropriate sanitary facilities (toilets, a space for the safe storage of personnel's clothes and personal belongings).	Contractor (Site Manager)	Installation prior to the commencement of construction works
Cleanliness and order		
All materials, equipment, machinery, and vehicles throughout the construction site are stored/parked in designated locations.	Contractor (Project Engineer)	Designated locations before the start of construction works
All areas are kept clean from trash, waste materials, and spilled substances (lubricants, fuels, etc.).	Contractor (Project Engineer)	Daily inspection
The tanks with compressed gases (for welding and cutting operations) are concentrated in one area, positioned upright, and fenced off.	Contractor (Project Engineer)	Daily inspection
The pipes are properly placed and fenced to prevent them from rolling or falling.	Contractor (Project Engineer)	Daily inspection
Vehicle inspection at the onshore construction site		
Development of a vehicle management plan for the construction site	Contractor (Site Manager)	Vehicle Management Plan
Pollution Prevention and Resource Availability		
Regular maintenance of vehicles and machinery	Contractor (HSE Coordinator)	Maintenance log
Estimation of the quantities and sources of water (industrial and potable)	Contractor (Project Manager)	Development of a water usage study
Proper management of wastewater	According to the waste management plan	Waste Management Plan
Proper management of wastewater	According to the waste management plan	Waste Management Plan
Cultural Heritage		

Measure / obligation	Responsible	Means of verification
Chance finds of cultural heritage	According to the Chance Finds Procedure	Chance Finds Procedure

7 MONITORING APPROACH AND LIST OF MONITORING PROCEDURES

The following monitoring procedures should be implemented:

Table 7-1: Monitoring Procedures

Measure /Obligation	Responsible	Frequency
The fencing (both the site boundaries and internal areas within the site) must be in good condition without any damage.	Contractor (HSE Coordinator)	Weekly
The signage of the offshore work safety exclusion zone must be in good condition without any damage	Contractor (HSE Coordinator)	Weekly
The signage of the offshore work safety exclusion zone must be in good condition without any damage	Contractor (HSE Coordinator)	Weekly
The sanitary facilities must be in good condition.	Contractor (HSE Coordinator)	Weekly
Storage of materials in designated locations	Contractor (HSE Coordinator)	Daily
Cleaning and tidying of the areas	Contractor (HSE Coordinator)	Daily
All pressurized gas tanks must be kept in an upright position	Contractor (HSE Coordinator)	Daily
Pipeline placement	Contractor (HSE Coordinator)	Daily
Vehicle and machinery maintenance record	Contractor (Project Engineer)	Monthly

The monitoring parameters for the management of emergency situations, waste, wastewater and chance finds of cultural heritage must comply with the provisions of the relevant Construction Management Plan.

8 TRAINING REQUIREMENTS

Before the commencement of construction works, the Project Management Officer of EnEarth will forward the Construction Management Plan to the Contractor.

An effective training program can reduce the number of injuries, material damages, legal liabilities, illnesses, workers' compensation claims and lost work time.

Safety training programs contribute to the creation of a safety culture, in which employees themselves play an active role in promoting appropriate workplace safety procedures. The safety training program covers topics such as:

- Accident prevention and promotion of safety,
- Compliance with safety procedures
- Accident and emergency response measures,
- Personal protective equipment (PPE),
- Safe work practices,
- Principles of fire safety and firefighting,
- Equipment and machinery safety
- Chemical and hazardous materials safety
- Occupational hazards
- First aid and automated external defibrillator (AED) use

9 INSPECTION AND REPORT SUBMISSION

The following will be carried out with regard to inspection and reporting:

Table 9-1: Inspection and Reporting

Inspection / Reporting	Parameter / Indicator	Frequency
Implementation of risk mitigation measures during construction	100% implementation	Monthly
Non-compliance report	Non-compliance	When it occurs
Submission of reports for accidents/near-misses	According to the HSE Management Plan	According to the HSE Management Plan