

ANNEX 15: TRAFFIC MANAGEMENT PLAN

Pioneer in integrated consulting services



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PRINOS OFFSHORE DEVELOPMENT PROJECT

TRAFFIC MANAGEMENT PLAN

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PRINOS OFFSHORE DEVELOPMENT PROJECT TRAFFIC MANAGEMENT PLAN	
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1 INTRODUCTION

1.1. PURPOSE

The company recognizes that the increase in marine traffic in the gulf of Kavala and around the new platforms and to and from the onshore construction site during the construction phase has the potential to impact the local community, workforce safety, traffic flow and the local marine environment. This Traffic Management Plan (TMP) allows ENERGEAN to identify these potential impacts through a stakeholder engagement and risk assessment process and to implement the appropriate management procedures to mitigate these potential impacts. This document outlines the mechanisms for managing the movement of all traffic offshore and onshore.

This plan is associated with the Project for each of the three phases (construction, operation and decommission), in order to minimize associated risks for traffic accessing the construction site from the public roads as well as for shipping movements in the gulf of Kavala and around the platforms. This document applies to all construction work places and to all project and contractor personnel associated with the Prinos Development Project.

This Management Plan is related to the following documents:

- ESMMP
- General construction management plan
- HSE MS

The TMP highlights the hazards, and the standard operating practices, which will be adhered to in order to minimize the potential for undesirable incidents on site, on public roads and at seawater routes for the period of the construction phase onshore and offshore and also during operations.

It should be noted that at the time of producing this TMP, detailed information on the construction, operation and decommission of the sites is unavailable. The principal role of this document is to provide framework guidance on traffic management measures in order to ensure that following criteria are met:

- The traffic management goals are explicit and understood by all individuals involved (personnel, suppliers, contractors, visitors, statutory regulatory bodies, etc);
- The potential for traffic related hazards is minimized;
- Any incidents associated with vehicle activity in the vicinity of and on the construction site are minimized;
- Any incidents associated with marine activity in the vicinity of the platforms and during sailing to work positions are minimized;

Vehicle activity associated with the construction site does not contribute to dust, noise or vibration issues to residential areas along the public highway routes.

1.2. SCOPE

The Project will generate traffic, such as the transport of personnel, construction equipment and materials to and from project sites and facilities. This Plan will outline how ENERGEAN will manage the shipping and road activities associated with the construction of the pipelines and platforms in the area. Objectives of the Plan are as follows:

- Promote the safe movement of equipment and personnel to and from the Project site and facilities;
- Promote safe transport of personnel and equipment for Project related activities;
- Identify and respond to stakeholder concerns;
- Address environmental management associated with shipping and road transports during the construction phase and in particular matters such as:
 - ⇒ Provision for the protection of the marine sensitive receptors, such as marine mammals and Mediterranean monk seal;
- Ensure that all relevant statutory requirements in relation to traffic are met during the construction, operation and decommissioning of the Project;
- Establish the baseline traffic conditions;
- Describe the access routes for traffic generated by the Project;
- Detail traffic management measures to be implemented by the Project;
- Outline the roles and responsibilities for traffic management for both onshore and offshore traffic schedule;
- Outline a program to monitor and audit Project related traffic and associated impacts;
- Minimize disruption, congestion and delays as a result of construction activity;
- Ensure that traffic generated as a result of the Project will have a minimal impact on existing marine routes and overall naval navigation as well as to the onshore neighboring activities.

2 ROLES AND RESPONSIBILITIES

ENERGEAN will provide all necessary supervisory staff to ensure that the TMP is implemented and adhered to during all aspects of the Project. The TMP will be monitored to ensure compliance by all site personnel, including management, supervisory staff, and contractors. All site personnel will be responsible for the identification, reporting and correction of areas found to be in non-compliance to the TMP, and adapt the plan where required, to encompass operational change during the phases of construction.

The Project Engineer is responsible for the safe implementation of this Plan. The Project Engineer reports to the Project Manager.

The Site Safety Engineer is responsible for supervising the safety on all activities and the implementation of all necessary protection measures. The Site Safety Engineer reports to the HSE Manager.

The HSE Manager is responsible for the overall evaluation of the health, safety, and environmental aspects of this Plan and confirmation that the appropriate hazard studies are performed for the planning, design, construction, and operations phases. The HSE Manager reports to ENERGEAN Management.

The Marine Coordinator is responsible for managing all shipping activities. The Marine Coordinator reports to the Administrative Manager.

The Project Manager is responsible for evaluating all information received from involved personnel and to define corrective actions in case of need. The Project Manager reports to ENERGEAN Management.

The public relations department will be responsible for any communication with counterparts and the community associated with the TMP. The public relations personnel reports to ENERGEAN Management.

It will be the responsibility of ENERGEAN to ensure that all vessels, equipment and vehicles shall comply with the required statutory and state legislation.

3 PLAN STANDARDS

The Environmental and Social Impact Assessment was completed in accordance with the National Environmental legislation that is in compliance with the European Union (EU) legislation. Given that ENERGEAN is negotiating a financial package with the European Bank for Reconstruction and Development (EBRD), this TMP is in compliance with the EBRD Performance Requirements (EBRD PR).

The TMP is compliant and should, at all times, maintain compliance following any changes to any construction or other type of works, with the following legislation, effective in the Greek State.

- Greek Ministry of Communications & Transportations, 2007. *Road Traffic Code*, Athens: Evgenidou Foundation.
- Greek Ministry of Maritime, *Safety Maritime Code No 9 (EAN-9)*.
- Greek Government, 1973. *Legislative Decree 187/1973, Code of Navy Law*. Athens: Greek Government Gazette.
- MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

4 TRAFFIC ACTIVITIES & ASSOCIATED RISKS

4.1. TRAFFIC ACTIVITIES

The shipping activities can be broken down into three major types:

- Commercial port of Kavala, Philipos B', activities:
 - ⇒ Transportation of the new platforms through Philipos B';
 - ⇒ Transportation of materials;
- Coastline of pipeline construction site;
- Seawater area of new platforms' installation.

The onshore traffic activities can be broken down into two major types:

- Transportation of people working at the construction site;
- Transportation of equipment and machinery to and from the construction site;
- Transportation of raw materials to the construction site.

4.2. RISKS TO THE ENVIRONMENT

Environmental risks related to shipping within the Kavala Port can occur from the routine discharge of pollutants during normal ship operations, or as a result of accidents or incidents.

Potential impacts include:

- Spills or discharges of oil, chemicals, cargo, sewage, grey water and water ballast;
- Garbage and marine litter;
- Collisions with marine animals;
- Disturbance of marine life by noise;
- Toxic effects of anti-fouling paints;
- Physical damage from groundings and anchoring;
- Ecosystem changes resulting from the introduction of invasive marine pests;
- Shipping noise; and
- Light from vessels.

4.3. RISK CONTROLS

Risk control is achieved by implementing the management measures listed above. Risk control will also be achieved via the following strategies or legislative instruments unless directed otherwise by ENERGEAN.

- International conventions and regulations:
- United Nations Convention on the Law of the Sea 1982

- International Convention for the Prevention of Pollution from Ships 1973 and the 1978 Protocol (MARPOL 73/78)
- International Regulations for Preventing Collisions at Sea 1972 (COLREGS)
- International Convention for the Safety of Life at Sea 1974 (SOLAS).

5 SHIPPING ACTIVITY

5.1. SHIPPING TRAFFIC

The installation of the new platforms will require the use of carriers delivering plant material as well as cross harbor vessels delivering plant and personnel to the offshore facilities. This is expected to result in a small increase in the marine traffic.

ENERGEAN intends to utilize local contractors and own means as much as possible to perform cross-harbor transportation services. So while there may be a minimal increase in the number of vessels, they will be performing multiple trips per day between the mainland and the offshore facilities in order to minimize the burden in the traffic conditions.

5.2. SHIPPING REGULATIONS COMPLIANCE

Impacts from the increased traffic are presented in the main ESIA document. In order to minimize the impacts the compliance with MARPOL 73/78 provisions need to be ensured.

MARPOL's objective is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances. As of 31 December 2005, 136 countries, representing 98% of the world's shipping tonnage are parties to the Convention. All ships flagged under countries that are signatories to MARPOL are subject to its requirements regardless of where they sail.

MARPOL contains 6 annexes, concerned with preventing different forms of marine pollution from ships:

- Annex I – Oil
- Annex II – Noxious Liquid Substances carried in Bulk
- Annex III – Harmful Substances carried in Packaged Form
- Annex IV – Sewage
- Annex V – Garbage
- Annex VI – Air Pollution

5.3. CROSS HARBOR SHIPMENTS

Cross harbor shipping subcontractors will be subject to Contractor's "Health, Safety, and Environmental (HSE) Management Plan" and will comply with applicable requirements of International naval regulations, EU and Greek statutes, regulations, standards and codes.

All transportation of personnel, goods and mobile parts to and from the offshore facilities, should be in accordance to the ESIA, the HSE Management plans and all relevant documentation.

6 EVALUATION AND MONITORING

Monitoring will be achieved through monthly reporting, which will come under the ENERGEAN's overall auditing and compliance procedure. This will ensure that the relevant legislation within the project area is adhered to.

In the event of spill or marine mammals collision the incident will be reported, investigated and remedial measures implemented appropriate to the nature of the incident. Due to the fact that, collisions of marine mammals with vessels usually occur at speeds exceeding 20 knots, a speed limitation of 20 knots will be defined in all boat movements under the responsibility of Energean (support vessels).

ENERGEAN will evaluate/rate cross-harbor and carriers based on their safety ratings, having an approved HSSE plan, and all required certificates being current and appropriate.

Cross-harbor service providers must provide ENERGEAN a copy of all certificates on a yearly basis. Carrier service providers will be inspected by a marine surveyor who will verify certificates are up-to-date before cargo is loaded onto the conveyance. Cargo will not be shipped if a vessel is out of class or is missing the required certificates.

7 IMPLEMENTATION SCHEDULE

The implementation schedule of the traffic management plan will be determined in accordance with the project's implementation and operation schedule. Thus, it will be accurately be able to be determined during the early stages of implementation, before construction and more precisely upon awarding of the specific works contract to contractors and suppliers.

Indicatively, the traffic management plan implementation schedule should be in place from ENERGEAN when the tenders for supplies and works will be prepared and sent to

contractors, then the various parties should be able to commit through their proposals and finally this will be finalized upon contracting them.