



European flagship Action for cold ironING in ports



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Presentation of the Environmental Studies: Installation of OPS in the port of Leixões impacts:

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DIRECTIVES

DIRECTIVE 2014/52/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 16 April 2014

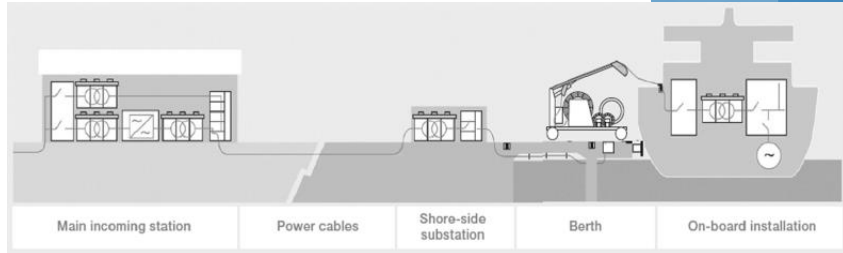
amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment

(Text with EEA relevance)

Annex IV of the Directive

Directive 2011/92/EU, as amended by Directive 2014/52/EU

- ▶ **1.** Description of the **Project**.
- ▶ **2.** Description of the **reasonable alternatives** and an indication of the **main reasons for selecting the chosen option**, including a comparison of the environmental effects.
- ▶ **3.** Description of the **baseline scenario** and outline of the likely evolution thereof without implementation of the project.
- ▶ **4.** Identification of the **factors** likely to be **significantly affected** by the project and assessment of impact of the Project on these factors.
- ▶ **5.** Description of the **measures to prevent, mitigate or compensate the adverse effects** on the environment of the Project.
- ▶ **6.** Description of the **monitoring measures** during the construction and operation of the Project.
- ▶ **7. Non-technical summary** of the information provided in the above points.
- ▶ **8. Reference list detailing the sources** used for the descriptions and assessments included in the report.



1

NON-TECHNICAL SUMMARY

context analysis || IMO objectives || European Union objectives

2

RATIONALE OF THE STUDY

Why Environmental studies?

3

PROJECT DESCRIPTION

Priorities? || technical characteristics

4

DESCRIPTION OF REASONABLE ALTERNATIVES

does not include alternative locations

5

ENVIRONMENTAL INVENTORY – Baseline Scenario

description of the relevant aspects of the baseline scenario.

6

IMPACT IDENTIFICATION AND ASSESSMENT

7

PREVENTION, MITIGATION / COMPENSATION MEASURES

8

MONITORING

5. ENVIRONMENTAL
INVENTORY Baseline
Scenario



1

Surface Water resources



2

Air quality



3

Environmental noise



4

Ecological System



5. Environmental Inventory – Baseline Scenario

- Surface Water resources
- Air quality
- Environmental noise
- Ecological System



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- Surface Water resources
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6. Impact Identification and Assessment

Consumption

Efluent

Wastes

6.1. Environmental impact assessment methodology

- Surface Water Resources
- Air Quality
- Environmental Noise

| | |
|----------------------------------|--|
| Evaluative sense | Negative, Null, or Positive depending on the impact causes degradation, does not affect or enhance the quality of the environment, respectively. |
| Type of occurrence | Direct or Indirect depending on whether they are determined directly by the project or are induced by project-related activities. |
| Probability of occurrence | Certain, Probable, Improbable, or Probability Unknown |
| Duration | Temporary or Permanent depending on whether they occur during a certain period, or are continued over time. |
| Magnitude | Weak, Medium, or Strong depending on the size of the effect caused by the impact. |
| Significance level | Very Significant, Significant, or Insignificant Significant according to compliance/non-compliance with legislation, whenever they interfere with populations, planning figures, or whenever they affect the balance of existing ecosystems, whenever they affect areas of recognized scenic or landscape value, etc. |
| Reversibility | Reversible or Irreversible in case the impacts remain in time or cancel out (in the medium or long term). |
| Time lag | Immediate, medium term or long term |
| Spatial scope | Local, Regional or National |
| Type of interaction | Cumulative or Synergistic |

6.3. Summary of the assessment of environmental impacts

- Surface Water Resources
- Air Quality
- Environmental Noise

| Environmental factor | | Surface Water Resources | |
|--|--------------------|---|--|
| Activities | | Effluents from sanitary installations to support workers | Hydrocarbon spills from vehicles, non-toad machinery and washing machinery |
| Evaluative sense (Negative, Null, or Positive) | Construction phase | Null | Negative |
| | Exploration phase | N.a. | Null |
| | Decommission phase | Null | Negative |
| Type of occurrence (Direct or Indirect) | Construction phase | N.a. | Direct |
| | Exploration phase | N.a. | N.a. |
| | Decommission phase | N.a. | Direct |
| Probability of | Construction | N.a. | Probable |
| | Indirect | Decommission phase | Cumulative |
| Mitigation measures | | <p>Construction and Decommission phases:</p> <ul style="list-style-type: none"> - Connection of the sanitary installation to the wastewater network or installation of a temporary septic tank. - Ensure adequate treatment of liquid effluents. | <p>Construction and Decommission phases:</p> <ul style="list-style-type: none"> - Existence of an Environmental Management Plan (PGA). - Training for workers and supervisors. - Ensure the presence on-site only of equipment that is in good condition. - Maintenance and periodic review of all machines and vehicles involved in work. - Repair and maintenance operations for vehicles and machinery carried in appropriate workshops. - Availability of human resources, equipment and materials to combat spills in land and surface waters. |



6.3. Summary of the assessment of environmental impacts

- Surface Water Resources
- Air Quality
- Environmental Noise

| Environmental factor | | | Air Quality | | | | |
|---|--------------------|--|--|--------------------------------------|---|--|---|
| Activities | | | Vehicle traffic and non-road machinery inherent to the work and shipyard | Electricity consumption by equipment | Demolition activities | Replacement of the energy source used by ships, when in port - fuel by electrical energy | Replacement of the energy source used by ships, when in port - electrical energy by fuel |
| Evaluative sense (Negative, Null, or Positive) | Construction phase | | Negative | Negative | Negative | N.a. | N.a. |
| | Exploration phase | | N.a. | Negative | N.a. | Positive | N.a. |
| | Decommission phase | | Negative | Negative | Negative | N.a. | Negative |
| Type of occurrence (Direct or Indirect) | Construction phase | | Direct | Indirect | Direct | N.a. | N.a. |
| | Exploration phase | | N.a. | Indirect | N.a. | Direct | N.a. |
| | Decommission phase | | Direct | Indirect | Direct | N.a. | Direct |
| Probability of occurrence (Certain, Probable, Improbable, or Probability) | Construction phase | | Certain | Certain | Certain | na. | na. |
| | Exploration phase | | N.a. | Certain | N.a. | Certain | na. |
| | Decommission phase | | Certain | Certain | Certain | N.a. | Certain |
| | Decommission phase | | Cumulative | Cumulative | Cumulative | N.a. | Cumulative |
| Mitigation measures | | | Construction and Decommission phases: - Plan de construction phase to take advantage of other construction projects. - Existence of an Environmental Management Plan (PGA). - Training for workers and supervisors. - Ensure the presence on-site only of equipment that is in good condition. - Maintenance and periodic review of all machines and vehicles involved in work. - Container barrier (existing in the container terminals and on the entire Doca 2 Sul). | | Construction phase: - Plan de construction phase to take advantage of other construction projects. - Container barrier (existing in the container terminals and on the entire Doca 2 Sul). | | Decommission phase: - Develop a Decommissioning Plan to minimize the associated environmental impacts. - Ensure the availability of adequate means to supply ships with less polluting fuel. - Encourage ships to use less polluting fuels by adapting the port's Tariff Regulations. |

6.3. Summary of the assessment of environmental impacts

- Surface Water Resources
- Air Quality
- Environmental Noise

| Environmental factor | | | Sound Environment | | | | | |
|--|--------------------|--|--|-------------------------|--|-------------------------------|--|--|
| Activities | | | Vehicle traffic and non-road machinery inherent to the work and shipyard | Construction activities | Demolition activities | Maintenance operations of OPS | Replacement of the energy source used by ships, when in port - fuel by electrical energy | Replacement of the energy source used by ships, when in port - electrical energy by fuel |
| Evaluative sense (Negative, Null, or Positive) | Construction phase | | Negative | | | N.a. | N.a. | N.a. |
| | Exploration phase | | N.a. | | | Negative | Positive | N.a. |
| | Decommission phase | | Negative | | | N.a. | N.a. | Negative |
| Type of occurrence (Direct or Indirect) | Construction phase | | Direct | | | N.a. | N.a. | N.a. |
| | Exploration phase | | N.a. | | | Direct | Direct | N.a. |
| | Decommission phase | | Direct | | | N.a. | N.a. | Direct |
| Probability of occurrence (Certain, Probable) | Construction phase | | Certain | | | N.a. | N.a. | N.a. |
| | Exploration phase | | N.a. | | | Certain | Certain | N.a. |
| (Direct or Indirect) | Exploration phase | | N.a. | | | | Cumulative | N.a. |
| | Decommission phase | | Cumulative | | | N.a. | N.a. | Cumulative |
| Mitigation measures | | | <p>Construction and Decommission phases:</p> <ul style="list-style-type: none"> - Transport of materials and wastes and activities with non-road machinery carried out between 7 am and 8 pm. - Construction and demolition activities carried out between 7 am and 8 pm. - Plan de construction phase to take advantage of other construction projects. - Container barrier (existing in the container terminals and on the entire Doca 2 Su). - Training for workers and supervisors. - Select less noisy construction methods and equipment. - "Ensure the presence on-site only of equipment that has acoustic approval under the terms of the applicable legislation and that are in good condition/maintenance." - Maintenance and periodic review of all machines and vehicles involved in work. - Existence of an Environmental Management Plan (PGA). | | <p>Exploration phase:</p> <ul style="list-style-type: none"> - Maintenance operations carried out between 7 am and 8 pm. | | <p>Decommission phase:</p> <ul style="list-style-type: none"> - Develop a Decommissioning Plan to minimize the associated environmental impacts. - Encourage less noisy ships, by adapting the port's Tariff Regulations. | |

7. Prevention, Mitigation or compensation measures

8. Monitoring

Thanks!



European flagship Action for coLd ironING in ports

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Discover more at

www.ealingproject.eu



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