

# APPENDIX 2

## NAMIBIAN MARINE PHOSPHATE (PTY) LTD

### Sandpiper Project

Proposed recovery of phosphate enriched sediments from the Marine Mining Licence Area No.170 off Walvis Bay Namibia.

Environmental Impact Assessment Report for the Marine Component

**Prepared by:**

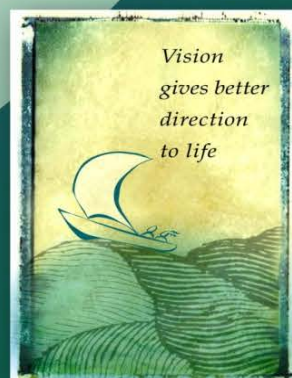
Mr. Jeremy Midgley (Pr.Sci.Nat)

J Midgley & Associates

In association with:

Enviro Dynamics

The CSIR



**CSIR**  
our future through science



March 2012

PROJECT SUPPORTING DOCUMENTATION



## PROJECT SUPPORTING DOCUMENTATION, APPENDIX 2:

***Project:***

*The Dredging of marine phosphate enriched sediments from Mining Licence Area No. 170*

***Date:***

*March 2012*

***Prepared for:***

*Namibian Marine Phosphate (Pty) Ltd.*

***Prepared by:***

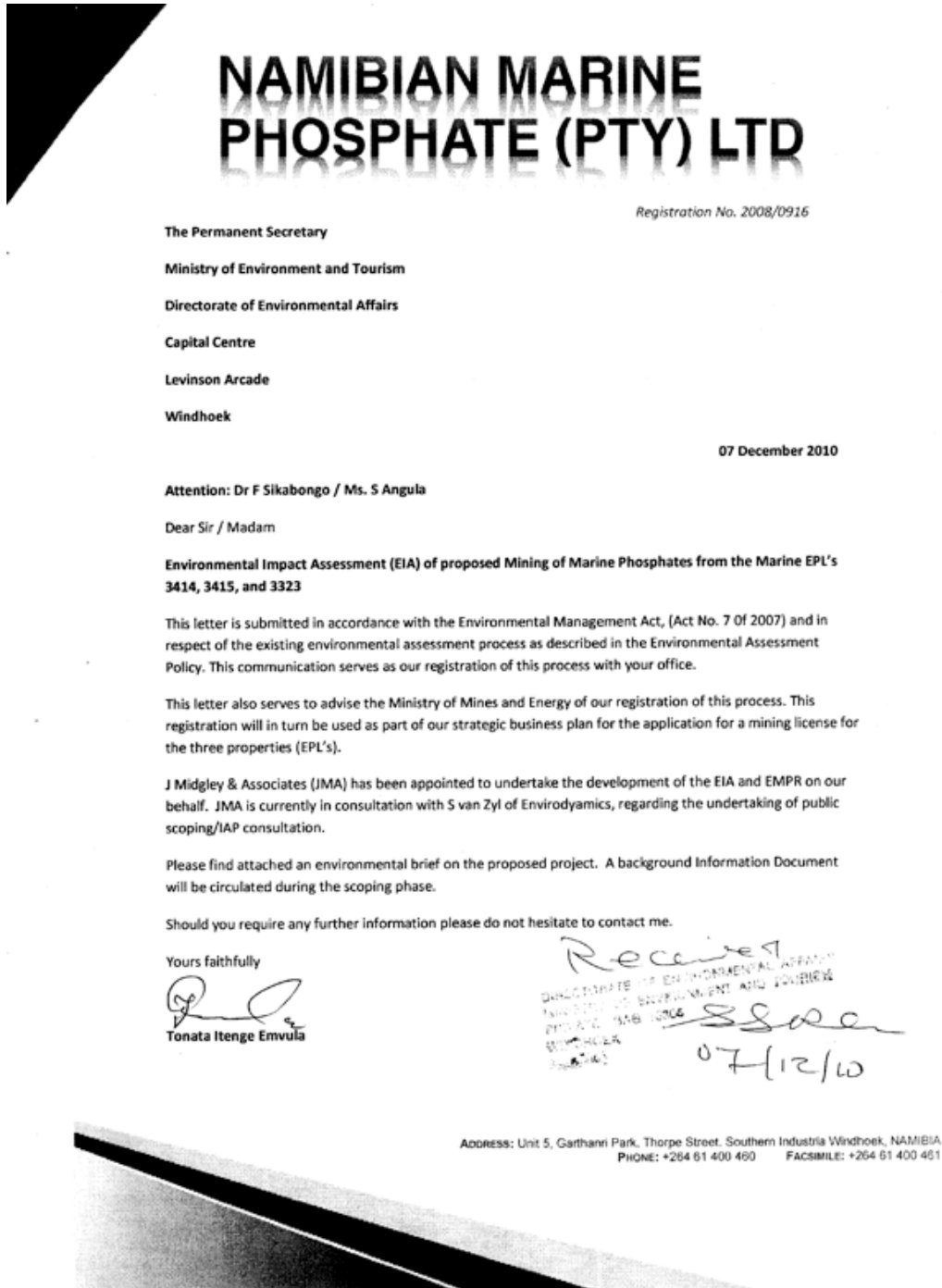
*Jeremy Midgley*

# contents

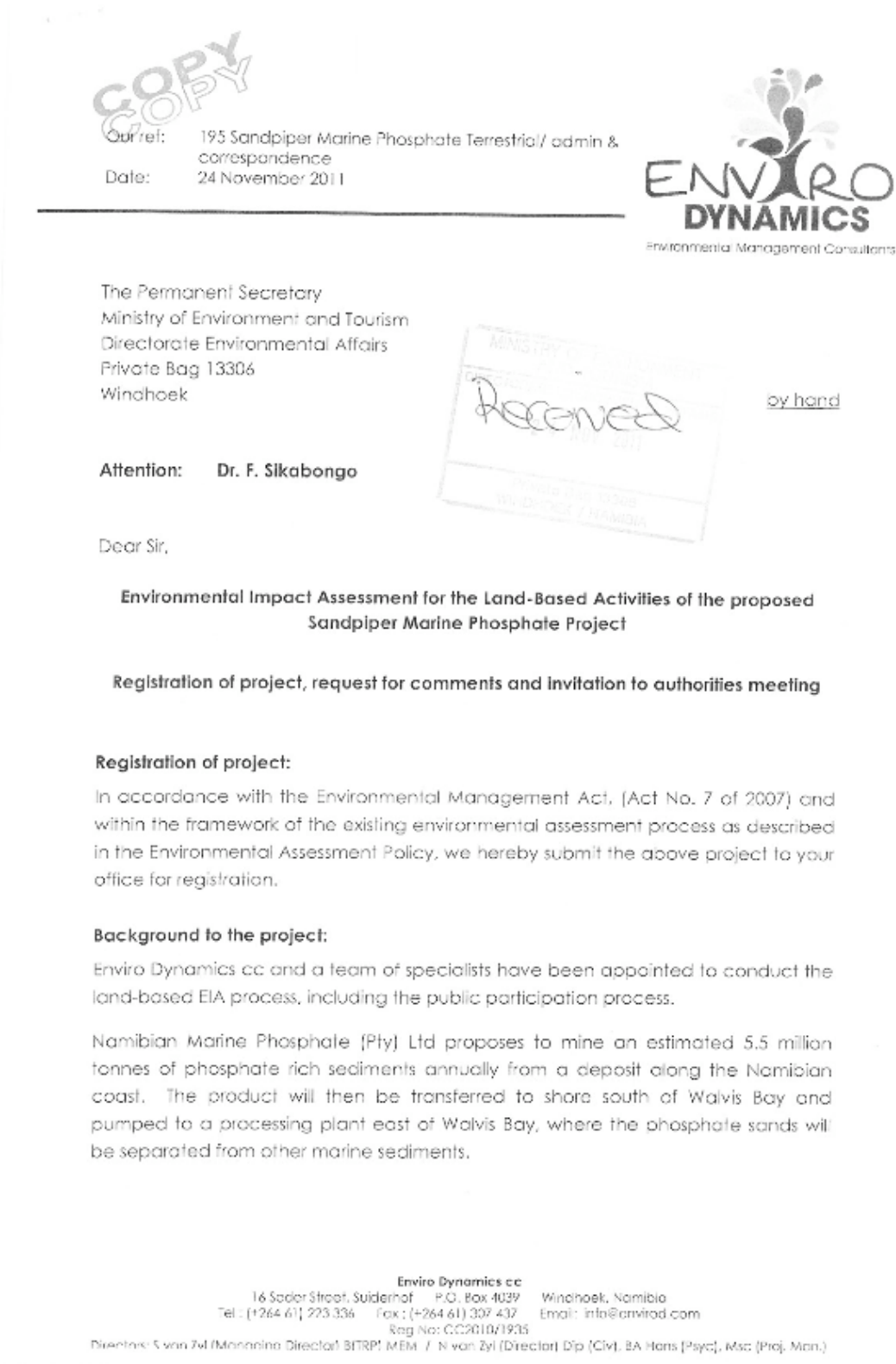
Appendix	Ref Chapter	Contents
2a	1	Nil
2b	2	Registration of the EIA Process with MET Mining Licence Environmental Policy Statement Health and Safety Policy Statement
2c	3	Nil
2d	4	Nil
2e	5	Nil
2f	6	Submission letters: Scoping Report: "The proposed mining of marine phosphates from Mining Licence Area 170" Public Consultation and Disclosure."
2g	7	Nil
2h	8	Proof of insurance coverage MARPOL relevant sections Dredging contract Jan du Nul – Vessel certification

## Appendices referred to from Chapter two

### Appendix 2b: Registration of the Marine Component of the EIA with MET



Appendix 2b: Registration of the Terrestrial Component of the EIA with MET



*PROJECT SUPPORTING DOCUMENTATION*

2

A separate Environmental Impact Assessment (EIA) is being conducted for the marine component of the proposed project.

We attach the Background Information Document for the land-based activities for your perusal.

**Invitation to the authorities meeting:**

The main objective of this meeting is to share project information and discuss possible implications and solutions that could be incorporated in the EIA. Your views in this respect are greatly valued and we hence trust that the following timeslot meets your schedule:

**Date:** Thursday, 1 December 2011  
**Time:** 09h30-12h00  
**Venue:** NamPower Convention Centre, Windhoek

**Request for comments:**

As part of the Scoping Process please provide our office with your comments and input concerning the EIA to be conducted.

Please do not hesitate to contact us if you require any additional information.

Yours faithfully,



Stephanie van Zyl  
Managing Director



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2b Mining Licence for MLA 170



REPUBLIC OF NAMIBIA  
MINISTRY OF MINES AND ENERGY

MINING LICENCE

(Issued in terms of Section 70 of the Minerals (Prospecting and Mining) Act, 1992)

Mining Licence No  Office Reference No

Subject to the provisions of the Minerals (Prospecting and Mining) Act, 1992, this Mining licence is hereby issued to

Full Name of Licence Holder

Identity or Passport No (natural person)

Company Registration No (company)

Address (natural person) or Registered Address (company)

Full Name of Accredited Agent (if applicable)

Address of Accredited Agent (if applicable)

for the period  from (date of issue)  to (date of expiry)

unless abandoned or cancelled on any prior date, or extended to such later date as may be endorsed on this licence in the event that this licence is renewed.

This Mining licence is issued in respect of

Name of Mineral(s)/Group(s) of Minerals

over a certain portion of land situate in Region(s)

Registration Division(s)  Magisterial District(s)

as more fully depicted in the attached diagram No  signed by the Commissioner

and is further subject to the terms and conditions contained in the notice of the Minister's intention to grant the

licence dated  and agreed to in writing by the applicant on

as appended hereto.

Signed at WINDHOEK this  day of

MINISTER OF MINES AND ENERGY





Appendix 2b: Environmental Policy Statement

# NAMIBIAN MARINE PHOSPHATE (PTY) LTD

Registration No. 2008/0916

## Environmental Policy Statement

It is Namibia Marine Phosphate's aim to achieve a high standard of care for the environment in all of the activities in which we engage.

To achieve this objective we will:

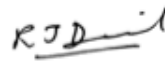
- Conduct our operations in compliance with all relevant environmental regulations, licenses and legislation as a minimum condition;
- Identify, monitor and manage environmental risks arising from our operations;
- Seek continuous improvement in environmental performance, production processes, waste management and the use of resources;
- Set, endeavour to meet and periodically review objectives and targets related to environmental performance;
- Provide appropriate training and awareness for all employees on environmental issues;
- Communicate regularly with employees about our aim and about individual responsibilities, and
- Communicate with the authorities, shareholders and the community about our environmental performance and contribute to the development of laws and regulations, which may affect our business.

Namibian Marine Phosphate strives to operate in harmony with all other stakeholders who may be affected by the mining operations, as is manifested in the company's environmental management policy statement. Resolution of any conflict, should such occur, is of highest priority. The Company is committed to complying with all environmental legislation, maintaining communication with users and managers, fostering environmental responsibility among staff and contractors and establishing programs to minimise impact to the environment.



Michael Woodbourne  
Director

12 December 2011



Roger Daniel  
Director

ADDRESS: Unit 5, Garthani Park, Thorpe Street, Southern Industria Windhoek, NAMIBIA  
PHONE: +264 61 400 460 FACSIMILE: +264 61 400 461

Appendix 2b: Health and Safety Policy Statement

# NAMIBIAN MARINE PHOSPHATE (PTY) LTD

Registration No. 2008/0916

## Health and Safety Policy Statement

Namibian Marine Phosphate aspires to zero harm to people. In this regard we will conduct our mining and exploration activities so as to protect the safety and health of employees, contractors, visitors and the communities in which we operate.

To achieve our goal, we will:

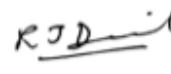
- Utilise a Safety Management System that follows a pro-active and consultative approach with all stakeholders to ensure that hazards are identified, assessed and adequately controlled in all activities;
- Provide and maintain a safe and healthy workplace by complying with, and exceeding where possible, all applicable safety and health laws, codes of practice, standards and guidelines;
- Provide leadership, accountability, support, resources and training to create an environment where all personnel have the ability and desire to achieve a safe, healthy and productive workplace;
- Provide support to the families of any person injured in the course of their employment at our operations, recognising that such injury has an impact beyond the individual injured;
- Strive to achieve leading industry practice in safety and health management;
- Develop, communicate, measure and review safety, health and other key business objectives and targets to ensure performance is continually improved;
- Employ only those staff and contractors who demonstrate high levels of performance and commitment to workplace health and safety management;
- Implement this policy through a systematic and ongoing planning process.

This Safety and Health Policy is the primary component of our overall operating philosophy. We are totally committed to this Policy and we accept primary responsibility for the achievement of all its aims.



Michael Woodbourne  
Director

12 December 2011



Roger Daniel  
Director

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## Appendices referred to from Chapter six

### Appendix 2f: Submission receipt of Marine Scoping Report (Draft)

**COPY**  
**NAMIBIAN MARINE  
PHOSPHATE (PTY) LTD**

Registration No. 2008/0516

Attention: Dr F Sikabongo

The Permanent Secretary  
The Directorate of Environmental Affairs  
Ministry of Environment and Tourism  
Private Bag 13346  
Windhoek

15 November 2011

Dear Dr Sikabongo,

EIA APPLICATION: PUBLIC CONSULTATION AND DISCLOSURE: PROPOSED  
NAMIBIAN MARINE PHOSPHATE (PTY) LTD MINING OF MARINE PHOSPHATE  
SEDIMENTS FROM ML 170 – MARINE COMPONENT: SCOPING REPORT.

It is my pleasure to provide you with the Scoping Report – Public Consultation and  
Disclosure report for the EIA process for the proposed Namibian Marine Phosphate (Pty) Ltd  
mining of marine phosphate-rich sediments from ML 170.

The comments received from the I&APs have been incorporated into the issues and  
response trail (appendix 2).

The report has been distributed to all stakeholders, with notification to all registered I&APs.  
The document is available on Enviro Dynamics web site <http://www.envirod.com>

Should you have any comments or queries please do not hesitate to contact Sigi  
Horsthemke of Enviro Dynamics [sigi@envirod.com](mailto:sigi@envirod.com) or fax +264 61 307 437 or tel +264 61  
2233 336. We look forward to your participation in the next stage of the process.

Kind regards

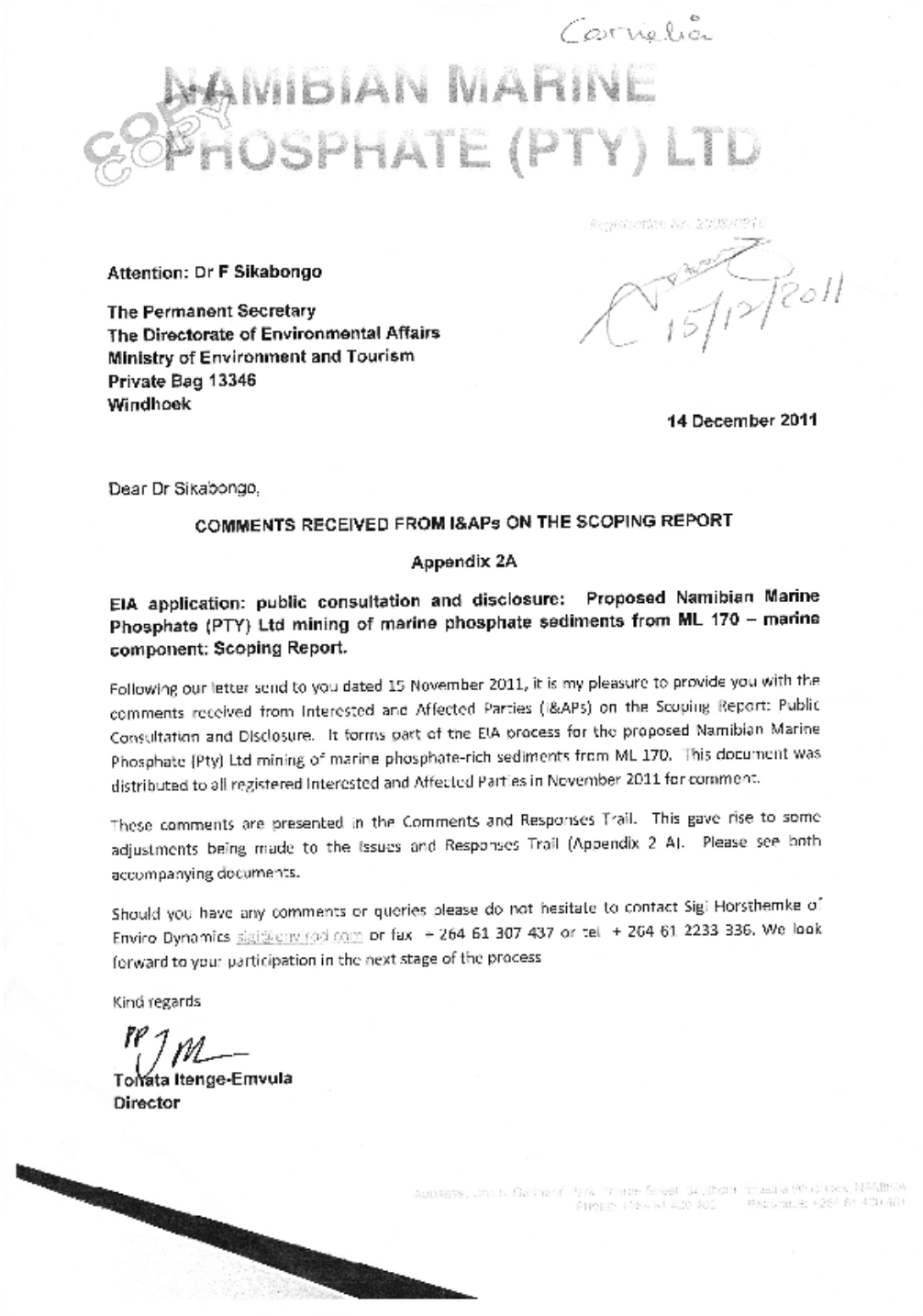


Tonata Itenge-Emvula  
Director



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Appendix 2f: Submission receipt of Marine Scoping Report (Final)



## Appendices referred to from Chapter Eight

### Appendix 2f: Protection and Indemnity Insurance Coverage



Certificate 2011305

#### EVIDENCE OF INSURANCE

This is to certify that we, Anchor Insurance Rotterdam, have effected for the assured named herein, insurances which provide subject to the insurance agreement, exclusions, conditions and declarations contained therein, and during their effective period, coverage as described below:

**1. Name of the Company to whom this Certificate will be issued**

Jan de Nul Group

**2. Co-Assureds**

Jan De Nul Singapore Pte Ltd.

as their respective interest and liabilities (also their mutual liabilities) may appear.

**3. Insured object**

**Amount insured**

"CRISTÓBAL COLÓN"	EUR	192,500,000	Hull
	EUR	82,500,000	Disbursements

**4. Description**

*Marine Risks*

Whilst working and/or otherwise within the International Navigation Conditions 1/11/03, however, excluding voyages in tow or otherwise via sea exceeding 1,000 nautical miles.

*War risks*

World Trade, subject to JWC Hull War, Strikes, Terrorism and Related Perils Listed Areas 16<sup>th</sup> December 2010.

**5. Period**

*Hull*

Risk attaching as from 4<sup>th</sup> March 2011 and ending per 3<sup>rd</sup> March 2012, both days inclusive.

*P&I*

Risk attaching as from 20<sup>th</sup> February 2011 and ending per 20<sup>th</sup> February 2012 both days inclusive, noon (P&I Risks).

1



Certificate 2011305

<b>6. Type of Insurance</b>	<b>Limit of Liability</b>
a. Hull & Machinery	amount insured as mentioned under 3
b. War risks	amount insured as mentioned under 3
c. Disbursements	amount insured as mentioned under 3
d. 4/4 <sup>th</sup> Running Down Clause and/or Protection and Indemnity clause including a.o. removal of wreck costs, oil pollution, salvage costs; excluding loss of life and personal injury in respect of crew of the insured vessel (as per Gard P&I Club Rules, tacit renewal date 20 <sup>th</sup> February).	P&I limits as per Rules

**7. Conditions**

AIR HS007 TIME CLAUSES, with usual Anchor Insurance Rotterdam amendments.  
P&I: Gard P&I Club Rules

Rotterdam, 25<sup>th</sup> January 2011  
Anchor Insurance Rotterdam

A handwritten signature in blue ink, appearing to read 'A. de Leeuw'.

Any Co-Insurance arrangement and/or waivers of subrogation as contained in the above policies are given but limited to the liability of the assured under the terms of the contract.

This evidence of insurance is issued as a matter of information only and confers no right upon the holder. This evidence of insurance does not amend, extend or alter the coverage afforded by the policies above.

Appendix 2f: Extract from MARPOL

**1. MACHINERY SPACE DRAINAGE**

*MARPOL Annex 1: Regulations for the Prevention of Pollution by Oil, Regulation 9(1)(b) Control of discharge of oil.*

"... any discharge into the sea of oil or oily mixtures from ships to which this Annex applies shall be prohibited except when all the following conditions are satisfied:

- (b) from a ship of 400 tons gross tonnage and above other than an oil tanker and from machinery space bilges excluding cargo pump-room bilges of an oil tanker unless mixed with oil cargo residue:
  - i. the ship is not within a special area;
  - ii. the ship is proceeding en route;
  - iii. the oil content of the effluent is less than 15 parts per million; and
  - iv. the ship has in operation equipment as required by regulation 16 of this Annex."

*Regulation 16, Oil Discharge Monitoring and Control System and Oil Filtering Equipment*

- (1) Any ship of 400 tons gross tonnage and above but less than 10,000 tons gross tonnage shall be fitted with oil filtering equipment complying with paragraph (4) of this regulation. Any such ship which carries large quantities of oil fuel shall comply with paragraph (2) of this regulation or paragraph (1) of regulation 14.
- (4) Oil filtering equipment referred to in paragraph (1) of this regulation shall be of a design approved by the Administration and shall be such as will ensure that any oily mixture discharged into the sea after passing through the system has an oil content not exceeding 15 parts per million. In considering the design of such equipment, the Administration shall have regard to the specification recommended by the Organization.<sup>1</sup>

**2. SEWAGE**

*MARPOL Annex IV: Regulations for the Prevention of Pollution by Sewage from ships, Regulation 8 Discharge of sewage.*

"(1) Subject to the provisions of regulation 9 of this Annex, the discharge of sewage into the sea is prohibited, except when:

- (a) the ship is discharging comminuted and disinfected sewage using a system approved by the Administration in accordance with regulation 3(1)(a) at a distance of more than four nautical miles from the nearest land, or sewage which is not comminuted or disinfected at a distance of more than 12 nautical miles from the nearest land, provided that in any case, the sewage that has been stored in holding tanks shall not be discharged instantaneously but at a moderate rate when the ship is en route

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<sup>1</sup> Refer to the Recommendation on International Performance and Test Specifications for Oily-Water Separating Equipment and Oil Content Meters adopted by the Organization by resolution A.393(X).



PROJECT SUPPORTING DOCUMENTATION

and proceeding at not less than 4 knots; the rate of discharge shall be approved by the Administration based upon standards developed by the Organization; or

- (b) the ship has in operation an approved sewage treatment plant which has been certified by the Administration to meet the operational requirements referred to in regulation 3(1)(a)(i) of this Annex, and
  - (i) the test results of the plant are laid down in the ship's International Sewage Pollution Prevention Certificate (1973);
  - (ii) additionally, the effluent shall not produce visible floating solids in, nor cause discolouration of, the surrounding water; or
- (c) the ship is situated in the waters under the jurisdiction of a State and is discharging sewage in accordance with such less stringent requirements as may be imposed by such State.

- (2) When the sewage is mixed with wastes or waste water having different discharge requirements, the more stringent requirements shall apply."

### 3. GALLEY WASTES

MARPOL Annex V: *Regulations for the Prevention of Pollution by Garbage from Ships, Regulation 3(1)(b), (1)(b)(ii) and (1)(c) Disposal of garbage outside special areas.*

"(1)(b): the disposal into the sea of the following garbage shall be made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than:

- (ii) 12 nautical miles for food wastes and all other garbage including paper products, rags, glass, metal, bottles, crockery and similar refuse;

(1)(c): disposal into the sea of garbage specified in subparagraph (b)(ii) of this regulation may be permitted when it has passed through a comminuter or grinder and made as far as practicable from the nearest land but in any case is prohibited if the distance from the nearest land is less than 3 nautical miles. Such comminuted or ground garbage shall be capable of passing through a screen with openings no greater than 25 millimetres."

### 4. SOLID WASTE

MARPOL Annex V: *Regulation 3(1)(a) and (1)(b).*

"(1) Subject to the provisions of regulations 4, 5 and 6 of this Annex:

- (a) the disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags is prohibited;
- (b) the disposal into the sea of the following garbage shall be made as far as practicable from the nearest land but in any case is prohibited in the distance from the nearest land is less than:
  - (i) 25 nautical miles for dunnage, lining and packing materials which will float;
  - (ii) 12 nautical miles for food wastes and all other garbage including paper products, rags, glass, metal, bottles, crockery and similar refuse;"

## 5. ATMOSPHERIC EMISSIONS

MARPOL ANNEX VI: *REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS*

### *Regulation 12: Ozone Depleting Substances*

- (b) Subject to the provisions of regulation 3, any deliberate emissions of ozone depleting substances shall be prohibited. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, except that deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance. Emissions arising from leaks of an ozone depleting substance, whether or not the leaks are deliberate, may be regulated by Parties to this Annex.
- (c) New installations which contain ozone depleting substances shall be prohibited on all ships, except that new installations containing hydro-chlorofluorocarbons (HCFCs) are permitted until 1 January 2020.
- (d) The substances referred to in this regulation, and equipment containing such substances shall be delivered to appropriate reception facilities when removed from ships.

### *Regulation 13: Nitrogen Oxides (NO<sub>x</sub>)*

- (1) (a) This regulation shall apply to:
    - (i) each diesel engine with a power output of more than 130 kW which is installed on a ship constructed on or after 1 January 2000; and
    - (ii) each diesel engine with a power output of more than 130 kW which undergoes a major conversion on or after 1 January 2000.
  - (b) This regulation does not apply to:
    - (i) emergency diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency; and engines with a rated engine speed of [2000 rpm] or greater and installed on ships not engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Protocol of [1997].
  - (c) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, the Administration may allow exclusion from the application of this regulation to any diesel engine which is installed on a ship constructed, or on a ship which undergoes a major conversion, before the date of entry into force of the present Protocol, provided that the ship is solely engaged in voyages to ports or offshore terminals within the State the flag of which the ship is entitled to fly.
- (2) (a) For the purpose of this regulation, "major conversion" means a modification of an engine where:
    - (i) the engine is replaced by a new engine built on or after 1 January 2000, or

PROJECT SUPPORTING DOCUMENTATION

- (ii) any substantial modification, as defined in the NO<sub>x</sub> Technical Code, is made to the engine, or
- (iii) the maximum continuous rating of the engine is increased by more than 10%.
- (b) The NO<sub>x</sub> emission resulting from modifications referred to in the sub-paragraph (a) of this paragraph shall be documented in accordance with the NO<sub>x</sub> Technical Code for approval by the Administration.
- (3) (a) Subject to the provision of regulation 3 of this Annex, the operation of each diesel engine to which this regulation applies is prohibited, except, when the emission of nitrogen oxides (calculated as the total weighted emission of NO<sub>2</sub>) from the engine is within the following limits:
  - (i) 17.0g/kWh when n is less than 130 rpm
  - (ii)  $45.0 * n(-0.2)$ g/kWh when n is 130 or more but less than [2000 rpm]
  - (iii) [9.8] g/kWh when n is [2000 rpm] or more

where n = rated engine speed (crankshaft revolutions per minute).

Test procedure and measurement methods shall be in accordance with the NO<sub>x</sub> Technical Code, taking into consideration the Test Cycles and Weighting Factors outlined in appendix V to this Annex.

- (b) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, the operation of a diesel engine is permitted when:
  - (i) an exhaust gas cleaning system, approved by the Administration in accordance with the NO<sub>x</sub> Technical Code, is applied to the engine to reduce onboard NO<sub>x</sub> emissions at least to the limits specified in sub-paragraph (a), or
  - (ii) any other equivalent method, approved by the Administration in accordance with the relevant guidelines to be developed by the Organization, is applied to reduce onboard NO<sub>x</sub> emissions at least to the limit specified in sub-paragraph (a) of this paragraph.
- (4) (a) Every diesel engine which is designed to operate within the limits specified in sub-paragraph (3)(a) of this regulation shall be provided with a ready means of verification, approved by the Administration in accordance with the NO<sub>x</sub> Technical Code, which ensures that the operation of the engine is in compliance with such limits. Such ready means of verification can take the form of either an equipment requirement or an inspection procedure.
- (b) A ship may be fitted with a monitoring and recording device as a ready means of verification. This device shall be approved by the Administration in accordance with the NO<sub>x</sub> Technical Code. These monitoring records shall be kept on board for three months for verification purposes by the Parties to the Protocol of [1997].

*PROJECT SUPPORTING DOCUMENTATION*

- (5) Every marine diesel engine to which this regulation applies shall be provided with a Technical File in accordance with the NO<sub>x</sub> Technical Code. The Technical File shall be prepared by the engine manufacturer and approved by the Administration.

*Regulation 14: Sulphur Oxides (SO<sub>x</sub>)*

*General requirements*

- (1) The sulphur content of any fuel oil used on board ships shall not exceed [5.0% m/m].
- (2) The worldwide average sulphur content of residual fuel oil supplied for use on board ships shall be monitored in accordance with guidelines to be developed by the Organization.

*Requirements within SO<sub>x</sub> Emission Control Areas*

- (3) For the purpose of this regulation, SO<sub>x</sub> Emission Control Areas shall include:
- (a) The Baltic Sea area as defined in regulation 10(1)(b) of Annex I:]
- (b) Any [other] sea, including port, areas designated by the Organization in accordance with the criteria and procedures for designation of SO<sub>x</sub> Emission Control Areas with respect to air pollution from ships contained in appendix II.
- (4) While ships are within SO<sub>x</sub> Emission Control Areas, at least one of the following conditions shall be fulfilled.
- (a) The sulphur content of fuel oil used on board ships in a SO<sub>x</sub> Emission Control Area does not exceed 1.5% m/m.
- (b) An exhaust gas cleaning system, approved by the Administration in accordance with the guidelines developed by the Organization, is applied to reduce the total emission of sulphur oxides from ships, including both auxiliary and main propulsion engines, to 6.0 g SO<sub>x</sub>/kWh or less calculated as the total weight of sulphur dioxide emission. Waste streams from the use of such equipment shall not be discharged into enclosed ports, harbours and estuaries unless it can be thoroughly documented by the ship that such waste streams have no adverse impact on the ecosystems of such enclosed ports, harbours and estuaries based upon criteria provided by the authorities of the port State to the Organisation.
- (c) Any other technological method that is verifiable and enforceable to limit SO<sub>x</sub> emissions to a level equivalent to that described in sub-paragraph (b) is applied. These methods shall be approved by the Administration in accordance with the guidelines developed by the Organization.
- (5) The sulphur content of fuel oil referred to in paragraph (1) and sub-paragraph (4)(a) of this regulation shall be documented by the supplier as required by regulation 18 of this Annex.
- (6) Those ships using separate fuel oils to comply with paragraph (4)(a) of this regulation shall allow sufficient time for the fuel oil service system to be fully flushed of all fuels

*PROJECT SUPPORTING DOCUMENTATION*

exceeding 1.5% m/m sulphur content prior to entry into a SO<sub>x</sub> Emission Control Area. The volume of low sulphur fuel oils (less than or equal to 1.5% sulphur content) in each tank as well as the date, time and position of the ship when any fuel-changeover operation is completed, shall be recorded in such log-book as prescribed by the Administration.

- [(7) During the first year immediately following entry into force of the instrument designating a specific SO<sub>x</sub> Emission Control Area, ships entering that SO<sub>x</sub> Emission Control Area are exempted from the requirements in paragraphs (4) to (6) of this regulation.]

*Regulation 15: Volatile Organic Compounds*

- (1) If the emissions of volatile organic compounds (VOCs) from tankers are to be regulated in ports or terminals under the jurisdiction of a Party to the Protocol of [1997], they shall be regulated in accordance with the provisions of this regulation.
- (2) A Party to the Protocol of [1997] which designates ports or terminals under its jurisdiction in which VOC emissions are to be regulated, shall submit a notification to the Organization. This notification shall include information on the size of tankers to be controlled, on cargoes requiring vapour emission control systems, and the effective date of such control. The notification shall be submitted at least six months before the effective date.
- (3) The Government of each Party to the Protocol of [1997] which designates ports or terminals at which VOC emissions from tankers are to be regulated shall ensure that vapour emission control systems, approved by that Government based on the standards developed by the Organization<sup>2</sup>, are provided in ports and terminals designated, and are operated safely and in a manner so as to avoid undue delay to the ship.
- (4) The Organization shall circulate a list of the ports and terminals designated by the Parties to the Protocol of [1997] to other Member States of the Organization for their information.
- (5) All tankers which are subject to vapour emission control in accordance with the provisions of paragraph (2) of this regulation shall be provided with a vapour collection system approved by the Administration based on the standards developed by the Organization<sup>3</sup>, and shall use such system during the loading of such cargoes. Terminals which have installed vapour emission control systems in accordance with this regulation may accept existing tankers which are not fitted with vapour collection systems for a period of three years after the effective date identified in Paragraph (2).
- (6) This regulation shall only apply to gas carriers when the type of loading and containment systems allow safe retention of non-methane VOC's on board, or their safe return ashore.

*Regulation 16: Shipboard Incineration*

- (1) Except as provided in paragraph (5), shipboard incineration shall be allowed only in a shipboard incinerator.

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<sup>2</sup> Reference is made to MSC/Circ. 585 Standards for Vapour Emission Control Systems.

<sup>3</sup> Reference is made to MSC/Circ. 585 Standards for Vapour Emission Control Systems.

*PROJECT SUPPORTING DOCUMENTATION*

- (2) Each incinerator installed on board a ship on or after [1 January 2000] shall meet the requirements contained in appendix IV. Each such incinerator shall be approved by the Administration based on the standard specifications for shipboard incinerators developed by the Organization<sup>4</sup>.
- (3) Nothing in this regulation affects the prohibition in, or other requirements of, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (London, 1972, as amended).
- (4) Shipboard incineration of the following substances shall be prohibited:
  - (a) Annex I, II and III cargo residues and related contaminated packing materials;
  - (b) polychlorinated biphenyls (PCBs);
  - (c) garbage, as defined in Annex V of MARPOL 73/78, containing more than traces of heavy metals; and
  - (d) refined petroleum products containing halogen compounds.
- (5) Shipboard incineration of sewage sludge and sludge oil may also take place in the main or auxiliary power plant but, in those cases, shall not take place inside ports, harbours and estuaries.
- (6) Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued<sup>5</sup>.
- (7) All ships with incinerators subject to this regulation shall possess a manufacturer's operating manual which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV.
- (8) Personnel responsible for operation of any incinerator shall be trained and capable of implementing the guidance provided in the manufacturer's operating manual.
- (9) Monitoring of combustion flue gas outlet temperature shall be required at all times and waste shall not be fed into a continuous-feed shipboard incinerator when the temperature is below the minimum allowed temperature of 850°C. For batch-loaded shipboard incinerators, the unit shall be designed so that the temperature in the combustion chamber shall reach 600°C within 5 minutes after start-up.
- (10) Nothing in this regulation precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.

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<sup>4</sup> Reference is made to the standard specification for shipboard incinerators contained in Appendix 2 to the Revised Guidelines for the Implementation of Annex V of MARPOL 73/78 (resolution MEPC.59(33)).

<sup>5</sup> Reference is made to the standard specification for shipboard incinerators contained in Appendix 2 to the Revised Guidelines for the Implementation of Annex V of MARPOL 73/78 (resolution MEPC.59(33)).

Appendix 2f: Vessel Certification of Register

GRAND-DUCHE DE LUXEMBOURG		GRAND DUCHY OF LUXEMBOURG	
			
<b>CERTIFICAT D'IMMATRICULATION</b>			
<b>CERTIFICATE OF REGISTRY</b>			
<b>N° 5 639</b>			
<p>CE CERTIFICAT ATTESTE QUE LE NAVIRE DESIGNÉ CI-APRÈS EST IMMATRICULÉ À LUXEMBOURG ET AUTORISÉ À BATTRE PAVILLON LUXEMBOURGEOIS CONFORMÈMENT À LA LOI MODIFIÉE DU 9 NOVEMBRE 1990 AYANT POUR OBJET LA CRÉATION D'UN REGISTRE PUBLIC MARITIME LUXEMBOURGEOIS</p> <p>THIS CERTIFICATE ATTESTS THAT THE SHIP HEREBELOW DESIGNATED IS REGISTERED IN LUXEMBOURG AND IS AUTHORIZED TO FLY THE LUXEMBOURG FLAG IN ACCORDANCE WITH THE LAW OF NOVEMBER 9th, 1990 CREATING A LUXEMBOURG PUBLIC MARITIME REGISTER, AS AMENDED</p>			
Nom du navire / Name of ship	Indicatif d'appel / Call sign	Matricule OMI / IMO number	
CRISTOBAL COLON	LXZP	9429572	
Port d'immatriculation / Port of registry	Jauge brute / Gross tonnage	Jauge nette / Net tonnage	
LUXEMBOURG	46373	13912	
Type de navire / Type of ship	Navigation / Trade		
drague à élinges traînantes / trailing suction hopper dredger	monde entier / world wide		
Destiné au transport de / Normal type of cargo	opérations de dragage / dredging operations		
Constructeur - Année / Builder - Year	CONSTRUCCIONES NAVALES DEL NORTE, Sestao, Espagne - 2008		
Puissance et type de propulseur(s) / Power and type of engine(s)			
2X 19200 kW MAN; Type: SE, Diesel			
Le navire est immatriculé au / The ship is registered with the			
Premier Bureau des Hypothèques à L-2667 Luxembourg sous le N° under the Nr 9-26 en pleine immatriculation in full registry			
par/ by : DREDGING AND MARITIME MANAGEMENT SA 34-36, Parc d'Activités Capellen L-8308 CAPELLEN			
Un document spécifiant les effectifs minimaux de sécurité est annexé à ce certificat A minimum safe manning document is appended to this certificate			
Le présent certificat est valable du / This certificate is valid from 09/02/2011 au / to 08/02/2013			
Certifié exact / Certified true	Délivré à / Issued at		Luxembourg, le 08/02/2011
			POUR LE COMMISSAIRE AUX AFFAIRES MARITIMES J. DEL MATHEU CONSEILLER TECHNIQUE
Conservateur des Hypothèques	Commissaire du Gouvernement aux affaires maritimes		