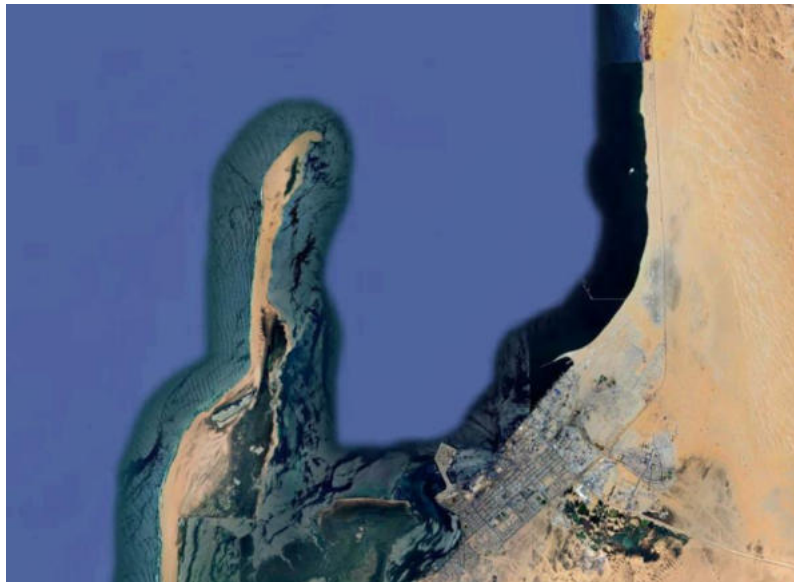


APP-007377

**FUEL BUNKERING SERVICES WITHIN THE PORT OF WALVIS BAY,
ERONGO REGION**

ENVIRONMENTAL CONTINGENCY PLAN



Prepared by:



Prepared for:

Maruvo Marine (Pty) Ltd

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LIST OF ABBREVIATIONS

BTP	Bunker transfer procedures
CCTV	Closed circuit television
ECC	Environmental clearance certificate
EEZ	Exclusive Economic Zone
EIA	Environmental impact assessment
EMA	Environmental Management Act
EMP	Environmental management plan
GPT	Geo Pollution Technologies
HSEMP	Health, safety, and environmental management plan
MEFT	Ministry of Environment, Forestry and Tourism
MGO	Marine gasoil
MSDS	Material Safety Data Sheet
NAMPOL	Namibian Police
PPE	Personal protective equipment
SHEQ	Safety, health, environment and quality
VLSFO	Very Low Sulphur Fuel Oil

1 INTRODUCTION

Maruvo Marine (Pty) Ltd (the Proponent) plans to undertake marine fuel bunkering operations within the Port of Walvis Bay and associated anchorage areas. The service will focus on the refuelling of seafaring vessels operating within the port and surrounding operational waters. Bunkering operations will include ship-to-ship (STS) transfers at approved locations within the Port of Walvis Bay and associated anchorage areas, as well as quayside bunkering where required. Fuel will be sourced through approved supply arrangements within the Port of Walvis Bay and, where applicable, from other marine fuel supply vessels, and transferred to receiving vessels under strict safety and environmental protocols. The proposed service will involve the transport and transfer of Marine Gas Oil (MGO) and Very Low Sulphur Fuel Oil (VLSFO). No blending or mixing of fuel will take place as part of the proposed operation.

In order to comply with Namibian legislation, and to adhere to all codes and standards applied in their operations, the Proponent wishes to apply for an environmental clearance certificate (ECC) for the fuel bunkering operations. The Proponent therefore appointed Geo Pollution Technologies (Pty) Ltd (GPT) as environmental consultant to assist with the ECC application process. In support of the ECC application, the contingency plan will be submitted to the Ministry of Environment, Forestry and Tourism (MEFT). The contingency plan is designed to mitigate the impacts of natural or human-induced disruptive events on core functions of a facility. It provides management options to ensure corrective action is taken when environmental incidents occur. The environment being defined in the Environmental Management Act (EMA) as “land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values”.

The contingency plan is a tool prescribing corrective take action in the event of a future incident or situation. This document should be available throughout operations and will come into action as soon as an incident occurs. The Proponent must appoint suitable personnel to manage, implement and update the contingency plan as may be required. The contingency plan will be used to apply for an ECC in compliance with Namibia’s Environmental Management Act (Act No 7 of 2007).

2 METHODOLOGY

The following methods were used to prepare the contingency plan:

1. An environmental impact assessment (EIA) and environmental management plan (EMP) were prepared and used to guide development of the contingency plan.
2. Potential incidents emanating from the commissioning of the bunker barge and bunkering operations were identified and appropriate corrective action measures listed.
3. The emergency preparedness framework including general measures to manage and mitigate possible scenarios involving emergency environmental incidents were described.

3 EMERGENCY ENVIRONMENTAL RESPONSE ACTIONS

The general measures provided in the sections below apply to all environmental emergency incident scenarios. These measures will be executed in response to an environmental emergency to:

- ◆ Reduce the threat to human life or injury,
- ◆ Protect against environmental damage; and
- ◆ Preserve infrastructure, product, and equipment.

During any environmental, health, or safety emergency on board the bunkering barge, the following general response measures shall be implemented immediately and in a coordinated manner:

1. Evacuate

- ◆ Evacuate all non-essential personnel from the affected area to a safe location (e.g. muster point).
- ◆ Account for all personnel using the vessel's crew and visitor register.
- ◆ Ensure passengers and crew remain calm and await instructions from the Master or Safety Officer.

2. Eliminate / Make Safe

- ◆ Eliminate sources of ignition, sparks, or open flames in the vicinity of the incident.
- ◆ Shut off electrical equipment not rated for hazardous areas.
- ◆ Secure or isolate moving machinery if it poses a risk to personnel or containment efforts.

3. Stop and Coordinate

- ◆ Stop the source of the incident if it is safe to do so (e.g. close valves, shut pumps, or isolate transfer lines).
- ◆ Coordinate the shutdown of bunkering operations, fuel transfer systems, or other relevant equipment.
- ◆ Maintain communication between the barge, receiving vessel, and terminal or port control.

4. Notify

- ◆ Internal Notification: Immediately inform the Barge Master and Safety, Health, Environment and Quality (SHEQ) Officer of the incident.
- ◆ External Notification: Contact the Port Authority, Directorate of Maritime Affairs, and Emergency Services as required by local regulations.
- ◆ Maintain a log of all notifications made, including times and persons contacted.

5. Identify

- ◆ Identify the nature and source of the incident (e.g. spill, fire, injury, gas leak).
- ◆ Refer to the Material Safety Data Sheet (MSDS) for any chemicals or fuels involved to determine hazards and appropriate response.
- ◆ Identify necessary personal protective equipment (PPE) before response actions.

6. Contain / Isolate

- ◆ For spills: Deploy containment booms, absorbent pads, and spill kits to prevent further spread.
- ◆ For fires or leaks: Establish a safety perimeter and isolate the area using barriers or warning tape.
- ◆ Restrict access to essential personnel only.

7. Stabilise and Neutralise

- ◆ Apply absorbents or neutralising agents to contain and stabilise spilled substances.
- ◆ For fires, use appropriate extinguishing agents (foam, CO₂, or dry chemical, depending on the fuel type).
- ◆ Prevent secondary incidents by ensuring good ventilation and continuous gas monitoring where applicable.

8. Clean Up

- ◆ Safely collect and dispose of contaminated materials (absorbents, rags, PPE) in accordance with waste management procedures.
- ◆ Ensure all affected decks, transfer areas, and spill equipment are cleaned and inspected before resuming operations.

9. Investigate and Remediate

- ◆ Conduct a post-incident investigation to determine root causes and contributing factors.
- ◆ Implement corrective and preventive measures.

- ◆ If environmental contamination occurred, conduct remediation under guidance of relevant authorities.

10. Monitor Recovery and Review

- ◆ Continue monitoring of air, water, or surface conditions as required until full recovery.
- ◆ Review and update the Health, Safety, and Environmental Management Plan (HSEMP) and Emergency Response Procedures to incorporate lessons learned.
- ◆ Conduct a debriefing session with crew and stakeholders.

4 ENVIRONMENTAL CONTINGENCY PLAN

The purpose of this section is to list the most pertinent potential environmental incidents that may occur as a result of bunkering operations. Actions to be initiated for each incident are also listed and an emergency contact sheet is provided that should be completed by the Proponent. Roles, responsibilities and accountability under the environmental contingency plan will be assigned by the Proponent.

Table 4-1 Emergency contact numbers

Category	Contact Person / Office	Organisation / Vessel	Telephone (Primary)	Telephone (Alternative / Radio)	Email / VHF Channel	Remarks / Role in Emergency
Onboard Contacts	Barge Master					Overall emergency coordinator; initiate response procedures.
	Chief Engineer					Stop fuel transfer, isolate systems, ensure safety of machinery spaces.
	SHEQ Officer					Incident reporting, coordination with authorities, safety supervision.
	Deck Supervisor / Pumpman					Direct spill containment and cleanup operations.
	Medic / First Aider					First response to injuries and medical emergencies.
	Crew Muster Point Coordinator					Conduct head count and ensure safe evacuation.
Shore-Based / Company Contacts	Operations Manager					Overall management oversight and liaison with authorities.
	SHEQ Department					Incident investigation, reporting, and regulatory compliance.
	Fleet Manager					Coordinate support vessels and resources.
	Emergency Response Coordinator					Mobilise emergency response team and equipment.
External Emergency Services	Port Authority / Harbour Master					Directs maritime emergency response and vessel control.
	Maritime Affairs					Coordinates spill response and environmental containment.
	Fire & Rescue Services					Fire suppression, rescue operations.

	Ambulance / Medical Services					Medical evacuation and treatment.
	Police / Marine Unit					Security, crowd control, and investigation support.
	Coastal Radio Station					Emergency communication relay.
	Environmental Authority					Notification of environmental incidents and compliance follow-up.
Support & Contractors	Spill Response Contractor					Provides containment, recovery, and cleanup services.
	Towage / Salvage Company					Assistance with vessel stability, towing, or salvage.
	Fuel Supplier					Product identification, technical support.
	Waste Disposal Contractor					Handles disposal of contaminated materials.

Key to the implementation of the contingency plan is the following:

- ◆ Response and management teams – in this instance the Proponent should provide the details of the manager / responsible party and ensure that contact details are available to all members of the staff.
- ◆ Emergency preparedness plans related especially to fuel spills and incidents of fire should be made available to all staff. Training of such plans will be made available by the Proponent.
- ◆ Emergency equipment such as fire-fighting equipment and communication systems will be kept and maintained.
- ◆ Training on all aspects of the emergency plans will be provided to staff.
- ◆ Communication channels internally and externally will be established and a clear understanding by all staff in terms of protocol should be encouraged for example which authority to call during which incident etc.
- ◆ In the event of any incident, environmental recovery should be documented and remediation of any pollution reported on.
- ◆ Incident investigation reports should be kept on record.

Table 4-2 Contingency plan

Risk	Probability	Preparation	Action
Fuel Transfer Spill / Leak	Medium	Maintain up-to-date Bunker Transfer Procedures (BTP). Inspect hoses, valves, and couplings before each operation. Spill kits and booms available on deck. Crew trained in spill response and PPE use.	Stop transfer immediately. Close all valves and activate emergency stop. Deploy spill booms and absorbents. Notify Barge Master, receiving vessel, and Port Authority. Report spill to SHEQ and Directorate of Maritime Affairs. Initiate cleanup and record incident.
Fire or Explosion	Low	Firefighting plan in place. Fire extinguishers and foam systems inspected monthly. No ignition sources near transfer area. Crew trained in fire response and emergency shutdown.	Sound alarm and evacuate non-essential personnel. Stop transfer and activate emergency shutdown. Attempt to extinguish only if safe using appropriate extinguishers. Notify Fire Services, Port Authority, and SHEQ. Account for crew and secure the area.
Personal Injury (slip, fall, burns, or exposure)	Medium	Crew trained in safe work practices and first aid. Non-slip deck surfaces. PPE (gloves, boots, respirators) readily available. First aid kits and stretcher onboard.	Apply first aid. For serious injuries, notify emergency services and arrange medical evacuation. Report to Master and SHEQ. Record incident and review for root causes.
Collision or Allision (contact with other vessel or structure)	Low	Maintain proper watch and communication with port control. Use fenders and mooring lines correctly. Pre-bunkering safety checklist completed.	Sound alarm. Stop fuel transfer immediately. Assess for spills or damage. Notify Port Authority, receiving vessel, and company. Deploy booms if fuel released. Investigate cause.
Equipment Failure (pump, hose, valve, power loss)	Medium	Preventive maintenance schedule in place. Spare hoses and emergency stop systems tested regularly.	Stop operation safely. Isolate faulty equipment. Notify Chief Engineer and Master. Conduct repairs or arrange support. Resume operations only after safety inspection.
Security Threat or Theft (fuel, equipment, or unauthorized boarding)	Low	Access control in place. Security watch during transfer. CCTV and deck lighting functional.	Report to Master and security contractor. Notify Port Authority and NAMPOL Marine Division. Secure area and prevent unauthorized entry. Record incident.
Severe Weather or Rough Sea Conditions	Medium	Monitor marine forecasts. Suspend operations when wind or swell exceed safe limits. Mooring lines checked frequently.	Suspend bunkering and secure hoses. Isolate fuel system. Evacuate exposed areas. Resume only once conditions stabilize. Record delay and weather data.
Pollution from Bilge or Wastewater Discharge	Medium	Bilge water management plan and oil-water separator maintained. Waste stored in designated tanks.	Stop discharge immediately. Contain and clean any release. Notify SHEQ and Marine Pollution Control. Dispose of contaminated water at approved facility.
Noise and Vibration Exposure	Low	Provide ear protection for all machinery spaces. Maintain equipment to reduce noise levels.	Use hearing protection in high-noise areas. Limit exposure duration. Monitor crew fatigue and health.

Human–Wildlife Interaction (e.g. seabirds, marine mammals)	Low	Crew awareness training to avoid disturbing wildlife. Report sightings to environmental authority.	Suspend operations if wildlife is in immediate proximity. Avoid any disturbance. Notify Port Environmental Officer if incident occurs.
Crew Fatigue or Human Error	Medium	Duty rotation schedule and rest hours monitored. Alcohol and drug policy enforced.	Relieve fatigued crew members. Report unsafe behaviour. Conduct toolbox talks before each operation. Investigate human factors in incidents.

Appendix A: Major Petroleum Spill Report Form

