

**ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR
THE ESTABLISHMENT AND OPERATION OF A
HANDLING AND TEMPORARY STORAGE FACILITY OF
WASTE OIL AT ERF 3373, ENERGY STREET, WALVIS
BAY**

PROPONENT

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DOCUMENT DESCRIPTION

PROJECT NAME: Handling and temporary storage of waste oil at Erf 3373, Energy Street, Walvis Bay, Erongo region.

DOCUMENT: ENVIRONMENTAL MANAGEMENT PLAN (EMP)

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LIST OF ACRONYMS

DEA:	Directorate of Environmental Affairs
EAP:	Environmental Assessment Policy
EIA:	Environmental Impact Assessments
EMA:	Environmental Management Act
EMP:	Environmental Management Plan
EMS:	Environmental Management System
HSEQ:	Health, Safety & Environment Quality System
I&APs:	Interested and Affected Parties
IBC:	Intermediate Bulk Container
ISO:	International Standards Organisation
MEFT:	Ministry of Environment, Forestry and Tourism
MSDS:	Material Safety Data Sheet
PPE:	Personal Protective Equipment
SABS:	South Africa Building Standards
SANS:	South African National Standards
SWM:	Solid Waste Management

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Oil Technology Namibia cc is a company that specializes in waste oil collection and recycling with its head office in Windhoek and collection depots in the north and south of Namibia and a processing facility in Windhoek. The company intends to establish and operate a waste oil temporary handling and storage facility on Erf 3373 located in Walvis Bay's heavy industrial area. The bulk waste oil collected at the facility will be transported to the Windhoek processing facility for refining. There will be NO treatment, refining, or sale to take place on Erf 3373, Walvis Bay. In terms of the Environmental Management Act, 07 of 2007 all waste management, treatment, handling, and disposal activities may not be carried out without an Environmental Clearance Certificate (ECC) being obtained.

1.2 Purpose of the EMP

The EMP is an environmental tool that is used to ensure that undue or reasonably avoidable adverse caused by the proposed project are minimized or prevented and the positive benefits of the project are enhanced. An EMP is therefore important in for ensuring that the management actions arising from Environmental Impact Assessment (EIA) processes are clearly defined and implemented through all phases of the project life cycle. All personnel taking part in the establishment and operations of the fuel storage facility should be made aware of the contents of the EMP, so as to plan the relevant activities that the project will include accordingly and in an environmentally sound manner.

The objectives of an EMP are:

- Ensuring compliance with regulatory stipulations and guidelines which may be local, provincial, national/international.
- Define details of who, what, where and when environmental management and mitigation measures are to be implemented.
- Formulate measures which will mitigate adverse impacts on various environmental components, protect environmental resources where possible, and enhance the value of environmental components where possible; and
- Providing feedback for continual improvement in environmental performance.

1.3 EMP Methodology

The stipulated environmental impact assessment procedure in terms of the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 was followed. The following key activities and tasks have been undertaken as part of the EIA and EMP development process, namely to:

- Solicited initial input from main stakeholders. This is essential toward the development of a sound plan. Since no resource sits in isolation, an environmental management plan can affect a number of other parties. For the best adherence and acceptance of a plan, input is needed to address concerns early in the planning process.
- Identify the problems and or questions associated with the facility. Clearly defined objectives were identified in order to remain centered on a management plan. Only in this way can the success of this environmental management plan be gauged.
- Made a list of applicable criteria, standards and principles for construction as required by legislation, regulation, policies and etc. As standards include criteria to fit various types of projects, much of the information is often irrelevant to any particular one. Went through any standards or reference guides to be complied with and marked all requirements applicable to each situation.
- Established the extent of the management plan and what the client must do on its own. It is easy for a management plan to end up in someone's hands and never be executed. Inform the client that creating the plan is an iterative process requiring routine correspondence to tailor it to Project Contractor's specific needs.
- Seek public input through advertisement of the EIA process in the two widely circulated newspapers and continuous engagements with registering as I&APs. An attempt to gather public input is always required.

This EMP was written to guide short-term goals and decision making and will provide environmental related guidelines. By having this plan in place, the site manager will have means to make good decisions. With public input, the plan helps agencies measure public opinion. It can help to guide future management decisions, especially when citizens are affected. It creates focus within an agency, guiding it through management changes.

2. ROLES AND RESPONSIBILITIES

2.1 Project involvement

The proposed project requires a multitude of administration of various role players to ensure that the proposed infrastructure is planned & designed, constructed, operated, and maintained in an environmentally sound manner.

Table 1: Project Involvement

NO.	SPECIFIC PROJECT ROLE	ADDRESS AND CONTACTS
1.	Proponent	Oil Technology Namibia cc Mr. J. J Jordaan Tel: +264 (081) 4991080 Email: walvis@oiltech.com.na Krumhuk Portion 26 Aris Industrial, Aris Windhoek Namibia
3.	Environmental Assessment Practitioner	Green Gain Consultants cc Mr. Joseph Amushila Cell: +264811422927 Email: info@greengain.com.na
4.	Local Authority	Municipality of Walvis Bay Civic Center Nangolo Mbumba Drive P/Bag 5017 Tel: +264 (061) 201 3111
5	Competent Authority	Ministry of Mines and Energy Department: Petroleum Tel: +264 (061) 284 2746

2.2 Responsibilities

It is the core responsibility of the proponent to ensure the successful implementation of this EMP and any condition to be imposed by the Ministry of Environment and Tourism. The implementation of the ESMP also requires the involvement of authorities, each with specific responsibilities to ensure that the development is operated in an environmentally sensitive manner.

2.2.1 The Proponent: Oil Technology Namibia cc Responsibilities

- a) Implement the final EMP after approval by DEA and ensure the project comply with the conditions therein.
- b) Ensure environmental training and awareness of the EMP to all contractors, sub-contractors and employees
- c) Notify MEFT and authorities of any proposed changes to the proposed project
- d) Ensure that appropriate compliance monitoring is executed
- e) Handle grievances in the prescribed manners as outlined in Section 9.
- f) Appoint an Environmental Control Officer (ECO)

2.2.2 Environmental Control Officer (ECO)

The proponent should appoint an Environmental Control Officer to oversee the implementation of the EMP during site establishment, operation and possible decommissioning project phase. The ECO can be an employee of the proponent or an outside/independent EAP. The ECO should be responsible for the following tasks.

- Ensure that all contractor and sub-contractors are complying with the content of this ESMP.
- Keep record of incidences during and take corrective actions i.e., issuing of penalties in case of transgressions etc. during project implementation.
- That all environmental impacts are managed according to the environmental principles of avoiding, minimizing, mitigating, and rehabilitation as contained in this EMP.
- Conduct monitoring and review of the on-site environmental management and implementation of the EMP by the Contractor and sub-contractors.
- Audit the implementation of the EMP on a regular basis
- Compile and submit an Environmental Reports (annually) to the Authority

2.2.3 The Contractor and Sub-contractors

It is expected that various contractors and sub-contractors will be appointed at various stages and for various tasks during different phases of this project. All appointed contractors and sub-contractors involved in the project shall ensure to comply with the EMP and its conditions, thus the proponent must ensure that a copy of the EMP is given to all contractors involved. The contractor upon receiving this ESMP should ensure:

- To undertake their activities in an environmentally sensitive manner and within the context of this EMP.
- To undertake good housekeeping practices during duration of their activities; and
- To ensure that adequate environmental awareness training takes place in the language of their employees.

2.2.4 Authorities

a). Local Authority: Walvis Bay Municipality

Provide authorization for the proposed activities by

- Issuing Consents for the ECC application
- Approve Building Plan and site layout
- Issue Fitness Certification in terms of the Local Authorities Act of 1190
- Conduct monitoring during site establishment and operation phase
- Ensure the operation of the activities are within the Walvis Bay Town Planning Scheme No.35
- Notify the proponent of any changes to land uses thereof and address dispute that may arise between the proponent (occupier) and adjacent properties owners.

b) Competent Authority: Ministry of Mines and Energy

Provide authorization through certifications and issuing permits and renewals thereof, required in terms of the Petroleum Products and Energy Act No. 13 of 1990 and its Regulations.

3. ENVIRONMENTAL MANAGEMENT REQUIREMENTS

The successful implementation of this EMP is depends on various factors, training and awareness, a good record keeping, enforcements and monthly reporting.

3.1 Environmental awareness training

All employees, contractors and sub-contractors involved in any work at the project should be briefed on their obligation towards environmental protection and methodologies in terms of the EMP prior to work commencing. The briefing should be done by the proponent prior to any work in the form of an onsite talk. Record of such trainings should be kept.

3.2 Record keeping

There should be an up-to-date filing system for the project whereby method statements, environmental incidents report, training records, audit reports and public complaints register are kept. It is advised that photographs of the site should be taken as a visual reference. These records should be kept for a minimum of **two (2) years**.

3.3 Enforcements: Non-compliance and penalties

This EMP upon approval by MET shall be considered a legally bidding. In cases of transgressions and non-compliance to the EMP, the transgressor should be liable to a penalty fine. Transgressions should be recorded in a dedicated register and be filed. The Proponent shall issue the penalties in terms of the severity of the environmental damages.

Adherence to this EMP during the operation of the project will ensure that the environmental impacts associated with the project will be mitigated to a greater extent thus promoting sustainable development. The commitment and co-operation of the identified responsible person(s) will ensure effective implementation of the EMP.

3.4 Environmental Reports

The proponent shall, in the project completion report, indicate the environmental performance and matter of incidental. The EAP shall conduct regular monitor of project activities during all project phases and keep records. These records may be required by the competent authority when deemed necessary.

4. LEGAL REQUIREMENTS

As part of implementation of this EMP, the proponent must comply with the requirements of various national legislations and municipal by-laws as outlined in the Scoping Report and also briefly presented here below.

Table 2: Applicable National Laws

LEGISLATION	PROVISION AND REQUIREMENTS
Constitution of the Republic of Namibia (1990)	<p>National objectives</p> <ul style="list-style-type: none"> -Guarding against overutilization of biological natural resources, - Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity.
Local Authorities Act, No. 23 of 1992 as amended	<p>Provide for the determination, for purposes of local government, of local authority councils; the establishment of such local authority councils; and to define the powers, duties and functions of local authority councils; and to provide for incidental matters.</p> <p>According to Section 94 of the Act, the collection and disposal of waste is the responsibility of local and regional authorities. The Act also gives power to the Local Authorities to establish by-laws.</p>
Pollution Control and Waste Management Bill, 2003	<p>This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management.</p> <p>The bill provide framework for a multitude administration on pollution control and waste management in the country. Each authority identified by the bill shall play its respective roles.</p>
Environmental Management Act, No.07 of 2007	<p>Ensuring that the significant effects of activities on the environment are considered carefully and in time. To promote the sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment.</p> <p>The proponent shall inform the competent authority of any changes to the proposed school facilities, to see if an EIA is required or not.</p>
Public Health and Environmental Act, 2015	<p>The objectives of the PHE Act are to;</p> <ul style="list-style-type: none"> • Promote public health and wellbeing • Prevent injuries, diseases and disabilities • Protect individuals and communities from public health risks • Encourage community participation in order to create a healthy environment • Provide for early detection of diseases and public health risks <p>Section 2 requires that a). “Every local authority must take necessary reasonably and applicably measures to maintain its local authority area at all times in a hygienic and clean condition” b). Prevent occurrence of a health nuisance, unhygienic condition, an offensive condition or any condition which could be</p>

	harmful or dangerous to the health of a person within its local authority or the local authority area of another local authority”
Labour Act (No 11 of 2007)	<p>To establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections. Regulate basic terms and conditions of employment; ensure the health, safety and welfare of employees; to protect employees from unfair labour practices; to regulate the registration of trade unions and employers’ organisations; to regulate collective labour relations; to provide or the systematic prevention and resolution of labour disputes;</p> <p>Any employment provided whether by the proponent or by contractor at this site i.e. Security Services must be in accordance with the Labour Act.</p>
Employment Service Act, 8 of 2011	<p>To provide for the establishment of the National Employment Service; to impose reporting and other obligations on certain employers and institutions; to provide for the licensure and regulation of private employment agencies; and to deal with matters incidental thereto.</p> <p>Any employment provided whether by the proponent or by contractor at this site must be in accordance with the Labour Act.</p>
Water Resources Management Act 2004	<p>This Act provides provision for the control, conservation and use of water for domestic, agricultural, urban and industrial purposes. In addition the Act clearly gives provision that pertain with license or permit that required abstracting and using water as well as for discharge of effluent.</p> <p>The effluent of human waste under this framework is the main focus; the use of mobile toilets during construction phase should be properly positioned. Permanent ablution facilities for the school should be connected to the septic tank and a Wastewater discharge permit should be obtained from MAWF. No discharge of raw wastewater in the open environment is allowed</p>
Atmospheric Pollution Prevention Ordinance, no. 11 of 1976	<p>To provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto. The Ordinance deals with administrative appointments and their functions; the control of noxious or offensive gases; atmospheric pollution by smoke, dust control, motor vehicle emissions; and general provisions.</p> <p>According to the Ordinance, the Local Authority shall control and prevent atmospheric air pollution or emission of noxious or offensive gases by smoke.</p>
Hazardous Substance Ordinance of 1974	<p>This Ordinance provides for the control of toxic substance and thus also relevant for pollution control. It covers for the manufacturing, sale, use, disposal, dumping, importing and exporting of hazardous waste.</p> <p>Any use of hazardous substance must be in compliance with this ordinance</p>

This is not the exhaust list. Provision of the relevant legislations listed in the Scoping report should be complied with.

5. IMPLEMENTING THE EMP: ROLES AND RESPONSIBILITIES

The proponent should play a pivotal role in implementing this ESMP. This section provides a manner in which the ESMP is to be implemented and also outlining responsibilities of all parties involved perform their respective roles in accordance with this ESMP.

Table 3: Proposed mitigation measures during establishment phase

Environmental Issue/Impacts	Mitigation Measures	Means of enforcement and monitoring	Responsibilities
Legal Compliance	<ul style="list-style-type: none"> Ensure that the project activities are operated within the relevant legations 	-Obtain ECC prior to the construction	Proponent/ECO
Impact on groundwater, surface water and soil contamination	<ul style="list-style-type: none"> Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator. All fueling should be conducted on surfaces provided for this purpose. E.g., Concrete slabs with regularly maintained seals between slabs. The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary. No direct discharge of pollution (wastewater or solid waste) into the open environment. Vehicles with leaking oil/pollutants should be provided with drip trays. 	<ul style="list-style-type: none"> -Ensure monitoring and compile an incident report if necessary. -Completion report to be included in the biannual report 	Contractor/Proponent/Project Manager

	<ul style="list-style-type: none"> Existing ablution facilities will be utilized during construction. Minimize the use of chemicals such as lubricants, solvents, and petroleum products 		
Waste generation	<ul style="list-style-type: none"> All waste generated must be contained and properly dumped at the Walvis Bay landfill site. The contractor's managers must create awareness among all employees regarding waste disposal in order to avoid illegal dumping. Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate. Ensure adequate disposal storage facilities are available. Prevent scavenging (human and non-human) of waste storage. 	-A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility. All information and reporting to be included in a bi-annual report.	Proponent/Contractor
Dust and atmospheric pollution	<ul style="list-style-type: none"> Avoid too much dust by sprinkling the construction site with water regularly. Only limited vehicles will be used. Mix material in an enclosed space Cover material when transporting. Personnel should be issued with appropriate masks where excessive dust or vapours are present. Vent pipes must be properly placed as per SANS requirements. 	Any complaints received regarding dust or fuel vapours should be recorded with notes on action taken. All information and reporting to be included in a bi-annual report.	Project Manager/Proponent/Contractor

Traffic Management	<ul style="list-style-type: none"> • The contractors must ensure to use clear road signs at construction sites to minimize risks of accidents. • Limit the use of vehicles to the site and avoid unnecessary trips. • Regular communication between the proponent and neighbouring land users with regard to traffic issues should be encouraged. 	All incidences and corrective action should be documented in a report.	ECO/Contractor
Noise and Vibration Management	<ul style="list-style-type: none"> • Provide employees with Personal Protective Equipment (i.e. earmuffs) • Follow the Regulations of minimum employment health requirements out lined in the National Labour Act, 11 of 2007 and the World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment. • All machinery must be regularly serviced to ensure minimal noise production. • Hearing protectors as standard PPE for workers in situations with elevated noise levels. 	Adhere to the WHO Guidelines. Maintain complaints register. Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.	ECO/Contractor
Occupation health and Safety	<ul style="list-style-type: none"> • Provide all employees with required and adequate personal protective equipment (PPE). • Clearly label dangerous and restricted areas as well as dangerous equipment and products. • Provision of firefighting measures in accordance with Labor Act • Appoint Safety Officer in accordance with Labor Act 	Any incidents must be recorded with action taken to prevent future occurrences.	ECO/Contractor

	<ul style="list-style-type: none"> • Provide fencing around the construction site at all times. Equipment that will be locked away on site must be placed in a way that does not encourage criminal activities (e.g. theft). • Ensure that all personnel receive adequate training on operation of equipment / handling of hazardous substances. • All Health and Safety standards specified in the Labour Act should be complied with. • Strict security that prevents unauthorized entry. 		
Workers' sanitation	<ul style="list-style-type: none"> • One sanitary facility (1 toilet with shower, 1 washing basin, 1 urinal) per 25 workers • Sanitary facilities to be covered, easily accessible, ventilated, well lit, maintained, and sanitized • Ensure safe drinking water for employees 	Any incidents must be recorded with action taken to prevent future occurrences.	ECO/Contractor
Water Demand	<ul style="list-style-type: none"> • Commit to minimizing the use of water during construction works • Recycle water for construction activities 	Any incidents must be recorded with action taken to prevent future occurrences.	ECO/Contractor
Employment opportunities	<ul style="list-style-type: none"> • If the skills exist locally, employees must first be sourced locally, then the region and then nationally. Deviations from this practice must be justified. 	Have a report and review of employee demographics	ECO/Contractor

Table 4: Proposed Mitigation Measures: Operation

Environmental Issue/Impacts	Mitigation Measures	Monitoring	Responsibilities
<p>Groundwater, Surface Water and Soil Contamination</p>	<ul style="list-style-type: none"> • Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator. • All fuelling should be conducted on surfaces provided for this purpose. E.g. Concrete slabs with regularly maintained seals between slabs. • The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary. • Proper training of operators must be conducted on a regular basis (Fuel handling, spill detection, spill control). • Any spillage of more than 200 litres must be reported to the relevant authorities. • Spill clean-up means must be readily available on site as per the relevant MSDS. • Any spill must be cleaned up immediately. • The spill catchment traps, and oil water separator should be cleaned regularly and waste disposed of at a suitably classified hazardous waste disposal facility. • Surfactants (soap) may not be allowed to enter the oil water separator e.g. soap usage on spill control surfaces. 	<p>Inspection holes at the ends of the tanks must as a minimum be inspected every 14 days and measurements must be recorded for future reference. A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results) with post remediation data (e.g. soil/groundwater hydrocarbon concentrations) and a copy of documentation in which spill was reported to Ministry of Mines and Energy.</p>	<p>Proponent/Contractor's</p>

	<ul style="list-style-type: none"> No direct discharge of pollution (wastewater or solid waste) into the waterbodies. Do not park vehicles or implements with leaking oils next to the waterbodies. Ensure that sanitary facilities are frequently cleaned and regularly monitored. Only use cleaning detergents that are environmentally friendly 		
Water and Energy demand	<ul style="list-style-type: none"> Ensure supply of potable water Provide solar panels to provide energy Enforce energy and water conservation measures 	A report should be compiled every 6 months of all complaints received and actions taken.	Proponent
Air Quality	<ul style="list-style-type: none"> Personnel issued with appropriate masks where excessive dust or vapours are present. Employees should be coached on the dangers of fuel vapours. Vent pipes must be properly placed as per SANS requirements. 	A complaints register should be kept for any dust related issues and mitigation steps take to address complaints where necessary e.g. dust suppression. Any complaints received regarding dust or fuel vapours should be recorded with notes on action taken. All information and reporting to be included in a bi-annual report.	Proponent /Contractor
Waste generation	<ul style="list-style-type: none"> Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical 	A register of hazardous waste disposal should be kept. This should include type of waste, volume as	Proponent/Contractor

	<p>containers, contaminated rugs, paper, water and soil).</p> <ul style="list-style-type: none"> • The spill catchment traps and oil water separator should be cleaned regularly and waste disposed of appropriately. Surfactants (soap) may not be allowed to enter the oil water separator. • See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers. • All hazardous waste should be transported to Walvis Bay for proper handling • Waste reduction measures should be implemented and all waste that can be re-used /recycled must be kept separate. • Ensure adequate disposal storage facilities are available. • Ensure waste is not blown away by wind. • Prevent scavenging (human and non-human) of waste storage. 	<p>well as disposal method/facility. Any complaints received regarding waste should be recorded with notes on action taken. The oil water separator must be regularly inspected, and all hydrocarbons removed once detected. Outflow water must comply with effluent quality standards. All information and reporting to be included in a bi-annual report.</p>	
Noise	<ul style="list-style-type: none"> • Follow World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment. • Keep volume of public address systems on a level where neighbours are not impacted on. • Manage noise caused by clients/customers – loud music etc. • Hearing protectors as standard PPE for workers in situations with elevated noise levels. 	<p>Maintain complaints register. Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.</p>	<p>Proponent/Contractor</p>
Fire	<ul style="list-style-type: none"> • A holistic fire protection and prevention plan is needed. This plan must include an emergency 	<p>A register of all incidents must be maintained on a</p>	<p>Proponent/Contractor</p>

	<p>response plan, firefighting plan and spill recovery plan.</p> <ul style="list-style-type: none"> • Special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990). • Maintain firefighting equipment, good housekeeping and personnel training (firefighting, fire prevention and responsible housekeeping practices). • Ensure all chemicals are stored according to MSDS and SANS instructions. • Maintain regular site, mechanical and electrical inspections and maintenance. • Clean all spills / leaks. • Special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990). • Follow SANS standards for operation and maintenance of the facility. • All dispensers must be equipped with devices that cut fuel supply during fires. 	<p>daily basis. This should include measures taken to ensure that such incidents do not repeat themselves. A report should be compiled every 6 months of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.</p>	
<p>Demographic Profile and Community Health</p>	<ul style="list-style-type: none"> • Prohibit illegal parking on and around the site. • Prohibit public drinking of alcoholic substances on the site and draft a response plan (which may include security personnel) to deal with intoxicated individuals on site. • Educational programmes for employees on HIV/AIDs and general upliftment of employees' social status. 	<p>Facility inspection sheet for all areas which may present environmental health risks, kept on file. Bi-annual summary report based on educational programmes and training conducted. Bi-</p>	<p>Proponent</p>

	<ul style="list-style-type: none"> • Appointment of reputable contractors. • Employ response plan when needed. 	annual report and review of employee demographics.	
Traffic Impact	<ul style="list-style-type: none"> • Erect clear signage regarding access and exit points at the facility. Clear indications of fuel deliveries and related down-time communicated to motorists. • Tanker trucks delivering fuel should not be allowed to obstruct any traffic in surrounding streets. • Have parking spaces for motorists utilizing the shop and offices. • The placement of signs to warn and direct traffic will mitigate traffic impacts. 	Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself. A report should be compiled every 6 months of all incidents reported, complaints received, and action taken.	Proponent
Public Health and Safety	<ul style="list-style-type: none"> • Ensure general cleanliness of the building, most importantly the sanitary facilities • Selected personnel should be trained in first aid and a first aid kit must be available on site. • The contact details of all emergency services must be readily available. • Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes: colour coding of pipes, operational, safe work and medical procedures, permits to work, emergency response plans, housekeeping rules, MSDS's and signage requirements (PPE, flammable etc.). • Security procedures and proper security measures must be in place to protect workers and clients, especially during cash in transit activities. • Reduce the amount of cash kept on site to reduce the risk of robberies. 	Any incidents must be recorded with action taken to prevent future occurrences. A report should be compiled every 6 months of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.	Proponent
Visual Impact	<ul style="list-style-type: none"> • Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure 	A report should be compiled every 6 months of all	Proponent/Contractor

	that the longevity of structures are maximised and a low visual impact is maintained.	complaints received and actions taken.	
Cumulative Impact	<ul style="list-style-type: none"> Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact. Reviewing biannual and annual reports for any new or re-occurring impacts or problems would aid in identifying cumulative impacts and help in planning if the existing mitigations are insufficient 	Annual summary report based on all other impacts must be created to give an overall assessment of the impact of the operational phase.	Proponent
Fuel Supply	<ul style="list-style-type: none"> Ensure compliance to the petroleum regulations of Namibia. Proper management to ensure constant supply. Record supply problems and take corrective actions. 	Record supply problems and corrective actions taken and compile a bi-annual summary report.	Proponent
Skills, technology and Development	<ul style="list-style-type: none"> If the skills exist locally, contractors must first be sourced locally, then the region and then nationally. Deviations from this practice must be justified. Skills development and improvement programs to be made available as identified during performance assessments. Employees to be informed about parameters and requirements for references upon employment. Give priority to local people 	Record should be kept of training provided. Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.	Proponent/Contractor
Employment opportunities	<ul style="list-style-type: none"> The proponent must employ local Namibians where possible. Deviations from this practice must be justified. 	Bi-annual summary report based on employee records.	Proponent

6. ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

The Environmental Management System (EMS) is an internationally recognized and certified management system that organizes the organization's environmental programs in a comprehensive, systematic, planned and documented manner. The proponent should develop and implement an EMS for the operations of the fuel retail facility. An EMS ensures ongoing incorporation of environmental constraints. With the aim to improve the environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks.

The key elements of an effective EMS are:

- The development of an Environmental Policy, which is a statement of a company's commitment to the environment and can be used as a framework for planning and action.
- An assessment of corporate activities, products, processes and services that might affect the environment.
- Details of environmental regulations and legislation that apply to the business and how to comply with these.
- Written procedures to control and document activities that could have a significant environmental impact.
- An environmental improvement programme, including policies and procedures to manage waste and resources.
- Defined environmental roles and responsibilities for staff.
- A formal and recorded staff training and environmental awareness programme;
- Systems for internal and external communications on environmental management issues.
- A record of environmental performance against set targets.
- Systems to identify and correct problems and prevent their recurrence.
- Emergency procedures to follow and contact numbers in the event of an environmental incident.
- Periodic audit to verify that the EMS is operating as intended; and
- Formal review by senior management with a view to adapting and improving the EMS as necessary.
- A spill kit must be available onsite at all times

7. COMPLIANCE MONITORING

To ensure continual improvement in environmental performance and reduce adversity of potential negative impacts, it is advisable to keep monitoring the identified environmental receptors. Monitoring of all activities during the construction period will be under the responsibility of the Contractor, whose environmental performance will be controlled by the ECO.

Table 5: Monitoring Schedule during site establishment phase

Element	Location	Type of monitoring	Frequency of monitoring	Purpose of monitoring
Dust	At the construction sites	Visual monitoring	Throughout phase	To ensure adherence to environmental protection requirements
Wastewater flows generated at the construction sites	At the construction sites	Visual monitoring	During monthly site visits	To ensure adherence to environmental protection requirements
Collection of solid waste	At the construction sites	Visual monitoring	During periodic site visits	To ensure adherence to environmental protection requirements
Use of dangerous materials (paints with heavy metals, lead compositions, asbestos-cement slabs, pipes, inflammable, toxic substances, etc.)	At the construction sites with the right documentation	Visual monitoring and study of documentation	Each month	To ensure adherence to environmental protection requirements
Protective measures at the construction site	At the construction sites with the right documentation	Visual monitoring	Daily	To ensure adherence to environmental protection and safety requirements
Noise & vibrations resulting from equipment work	Project area/close to settlements	Portative noise metering device	During periodic site visits, daily	To ensure adherence to environmental protection requirements
Traffic operation /movement	At the construction site	Visual monitoring of machinery and trucks carrying construction materials	During periodic site visits	To ensure adherence to environmental protection requirements

During the operation phase, the Scheme Superintended must ensure that compliance monitoring is conducted at different intervals/frequencies throughout the HWSS operational life span as indicated in the table below.

Table 6: Monitoring during operation phase

The issue to be monitored	Monitoring Objectives	What needs to be monitored	Frequency and means of Monitoring
Spills and leaks	Prevent environmental pollution	-Overflows, leakages, pipe bursts, etc.	Daily inspections and meter reading
Public Health risks	Operate the project in an environmentally friendly and socially acceptable manner.	Reeds and overgrown vegetation Presence of mosquitoes, snakes, rodents, etc.	Monthly inspections and physical observation.
Occupational health risks	Ensure health and safe working condition	Chemical exposure and presence of health hazards	Daily physical observations.
Waste management	Prevent environmental pollution and contamination.	Litter chemical storage & handling, cleanliness, Chemical composition of sludge.	Daily inspections and physical observation. -quarterly chemical testing
Implementation of the EMP	Ensure compliance to this EMP and adherence to the regulative measures during the operation, maintenance, and decommissioning phase	Implementation of specified measures and compliance to the EMP and other relevant legal requirements.	Biannual environmental report to MEFT.

8. EMERGENCY RESPONSE PLAN

Emergencies can occur at any time or place either during the construction and operation of the proposed facility. Some of the emergencies which are associated with the proposed project are as follows.

- Substance spillage i.e., oil, concrete, chemicals, etc.
- Fire outbreak
- Accidents

Table 7: Emergency response plan

NO.	Type of Emergency	Response actions	Responsible
1.	Oil spill	<ul style="list-style-type: none"> • Stop and control the spill at the source first. • Contain the spill/leakage with appropriate containers i.e., drip trays, sumps, etc., and in an approved manner to the satisfaction of the RE. • Clean the affected area with water or an approved cleaning product. • The contaminated soil should be removed and disposed of at the Walvis Bay landfill site. • Repair vehicle or machinery with leakage. • If it cannot be repaired, such vehicle or machinery should not be used until it is safe to do so. • Report the incident to the RE and record it in the logbook. 	<ul style="list-style-type: none"> • Proponent/Driver
2.	Fire outbreak	<ul style="list-style-type: none"> • Follow the holistic Fire Approach as presented in Annexure 3 	<ul style="list-style-type: none"> • Site Guard
3.	Accident i.e., injury to a person	<ul style="list-style-type: none"> • The priority after a construction accident should be to get medical attention for an injured person. • Assess the injured person's situation by checking breath, pulse. • Notify the First Aid Person • Assist the First Aid Personnel • Record in the incident report form. • Report incident to the Scheme Superintendent 	<ul style="list-style-type: none"> • Proponent

9. CONCLUSION

The proponent should play a pivotal role in the implementation of this EMP and should ensure proper coordination with other stakeholder and provide training to all employees, contractors and sub-contractors. The proponent should also ensure to avail necessary resources (i.e., human, financial etc.) and synergies to enable the implementation of this EMP.

Upon approval by the authorities, this EMP shall be considered legally binding and any deviation or transgression is punishable by law as per the Environmental Management Act, No. 07 of 2007. The preparation of this EMP is based on the current information provided, any changes or deviation from the initial plan of this project shall trigger changes to this EMP.

Lastly, this EMP is valid until the project has been successfully implemented. A copy of this EMP shall be kept onsite. The competent authority is mandated to conduct regular monitoring and inspections on this project and to provide regular (annually) reports on this project or as required by the authority.



Annexure A: Environmental Compliance Monitoring Checklist

PART 1: ADMINISTRATIVE INFORMATION

Project Title:		Date:
Project location:	Reporting period	Individual Preparing Checklist:
Region:	Department:	
Scheme Superintended:	Phone No.:	

PART 2: ENVIRONMENTAL ASPECTS

ENVIRONMENTAL ASPECT/IMPACT	ENVIRONMENTAL COMPLIANCE (AS PER EMP REQUIREMENT?)		Remarks (specify the location, a good practice observed, causes of non-conformity, and proposed action)
	YES	NO	

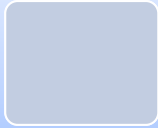
PART 3: RECOMMENDATION

FOR EACH ITEM CHECKED IN PART 2, DESCRIBE THE CORRESPONDING CONTROLS TO BE IMPLEMENTED TO REDUCE POTENTIAL ENVIRONMENTAL IMPACTS (e.g., spill prevention, erosion controls, air emission controls including dust suppression, selection of materials, etc.). Provide details of the activities and impacts for each box and the proposed mitigations. Include attachments where appropriate. Use the same number system for your input.

ECO: Signature: _____ Date: _____

Scheme Superintended: Signature: _____ Date: _____

Annexure B: Fire response Plan



STEP 1

- Do not panic
- Press the nearest alarm button
- Rescue any person in immediate danger, if safe to do so



STEP 2

- If possible, commence fighting the fire
- Call fire brigade



STEP 3

- Leave the building by the nearest emergency exit
- Ensure all other personnel are warned along the way
- Do not stop to collect personal belongings
- Do not use lifts, use stair ways



STEP 4

- Report to the assembly point
- Do not return to the building until authorized to do so

