



**ENVIRONMENTAL MANAGEMENT PLAN FOR THE  
OPERATION OF AN EXISTING CONSUMER  
INSTALLATION TANK FOR STORAGE OF DIESEL  
ON ERF 1133, ARANDIS, ERONGO REGION**

**2024**

**PREPARED FOR**

**CPP SUREMIX**

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**Industrial Area, Erf 1918**



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## **DOCUMENT DESCRIPTION**

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**PROJECT NAME:** Operation of an existing Consumer Installation Tank for Storage of Diesel at Erf 1133, Arandis, Erongo region.

**DOCUMENT:** ENVIRONMENTAL MANAGEMENT PLAN (EMP)

**CLIENT:** CPP SUREMIX

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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
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
SHE:	Safety, Health and Environment
MME:	Ministry of Mines and Energy
WHO:	World Health Organization

# 1. INTRODUCTION AND BACKGROUND

## 1.1 Introduction

CPP SUREMIX herein after referred to as the proponent, intends to apply for Consumer Installation Certificate (CIC) from the Ministry of Mines and Energy for the operation of its existing 9,000-liter diesel tank located at Erf 1133, Aloe Street, Arandis Extension 4. The company specializes in the supply of aggregate and ready-mix concrete and has branches in four coastal towns. To complement its operations, the company has entered into a long-term agreement with a bulk fuel supplier, Bachmus Oil & Fuel Supplies for the supply of diesel to its coastal branches. In Arandis, the company operates from Erf 1133, Aloe Street, Arandis Extension 4.

The new Petroleum Products Regulations prohibit a person to have in possession more than 200 litres of petrol or diesel in an urban area or more than 600 litres of petrol or diesel in a rural area. To store diesel or petrol above the stated threshold, one needs to apply for a retail licence in case of operators that sell petrol/diesel to the public) and a consumer installation certificate for those keeping fuel for own use.

The CIC is defined as a petrol or diesel installation (above ground or below ground), including any pump, storage tank and piping used in relation thereto, for the purpose of dispensing fuel into own or hired petrol or diesel consuming equipment or own or hired vehicles (MME,2000). The consumer certificate is strictly only for own use and may not give or sell petrol or diesel to another person.

Furthermore, in terms of Section 9.4 & 9.5 of the Environmental Management Act, 2007 the storage and handling of dangerous goods such as diesel/petrol may not be carried out without an Environmental Clearance Certificate (ECC) being obtained. Since the diesel tanks have already been installed and the sites have been operational for many years now, an EMP was deemed sufficient.

Green Gain Consultants cc was appointed to prepare Environmental Management Plans for the storage and handling of diesel at various coastal branches and obtain ECC from the Ministry of Environment, Forestry and Tourism (MEFT). The ECC will also aid in the application of consumer installation tanks from the Ministry of Mines and Energy (MME) in line with the Petroleum Product Regulations of 2000.

## **1.2 Purpose of the EMP**

This EMP was prepared for the operation of an existing consumer installation tank for storage and handling of diesel on a 9,000 liter above ground steel tank at Erf 1133, Aloe Street, Extension 4, Arandis. 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. The EMP is therefore important in ensuring that the management actions of potential environmental impacts are clearly defined and implemented through all phases of the project life cycle.

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 relevant 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.



## 1.4 Project involvement

The implementation of the EMP also requires the involvement of role players, each with specific responsibilities to ensure that the development is operated in an environmentally sensitive manner.

Table 1: Project Involvement

NO.	SPECIFIC PROJECT ROLE	ADDRESS AND CONTACTS
1.	Proponent	<p><b>CPP SUREMIX</b>  <b>Mr. Ryno Pienaar</b>  <b>Sales and Technical Manager</b>            Tel: +264 (064) 202814            P.O. Box 3832, Walvis Bay            Email: <a href="mailto:ryno@cppsuremix.com">ryno@cppsuremix.com</a></p> 
2	Fuel Supplier/Operator	<p><b>Bachmus Oil &amp; Fuel Supplies</b>            (064) 205 812_  <a href="mailto:nico@bachmus.com.na">nico@bachmus.com.na</a></p> 
3.	Environmental Assessment Practitioner	<p><b>Green Gain Consultants cc</b>            Mr. Joseph Amushila            Cell: +264811422927            Email: <a href="mailto:info@greengain.com.na">info@greengain.com.na</a></p> 
4.	Local Authority	<p>Arandis Town Council            Private Bag 7002, Arandis, Namibia            Tel: 064 512 400</p>
5.	Regulatory Authority	<p><b>Ministry of Environment and Tourism</b>            Department: Environmental Affairs            Tell: +264612842746</p>

## 2. DESCRIPTION OF THE ACTIVITIES

### 2.1 Location

CPP Suremix Arandis branch is located at Erf 1133, Aloe Street, Extension 4 on the following coordinates -22.4222727° S; 14.9686263° E.



Figure 1: Site locality

## 2.2 Site zoning and description

The site is zoned Industrial and is surrounded by industrial properties. The site infrastructure includes a site office, maintenance workshop, garage, yard, concrete batching plant and the above ground steel tank with a capacity of 9,000 litter.

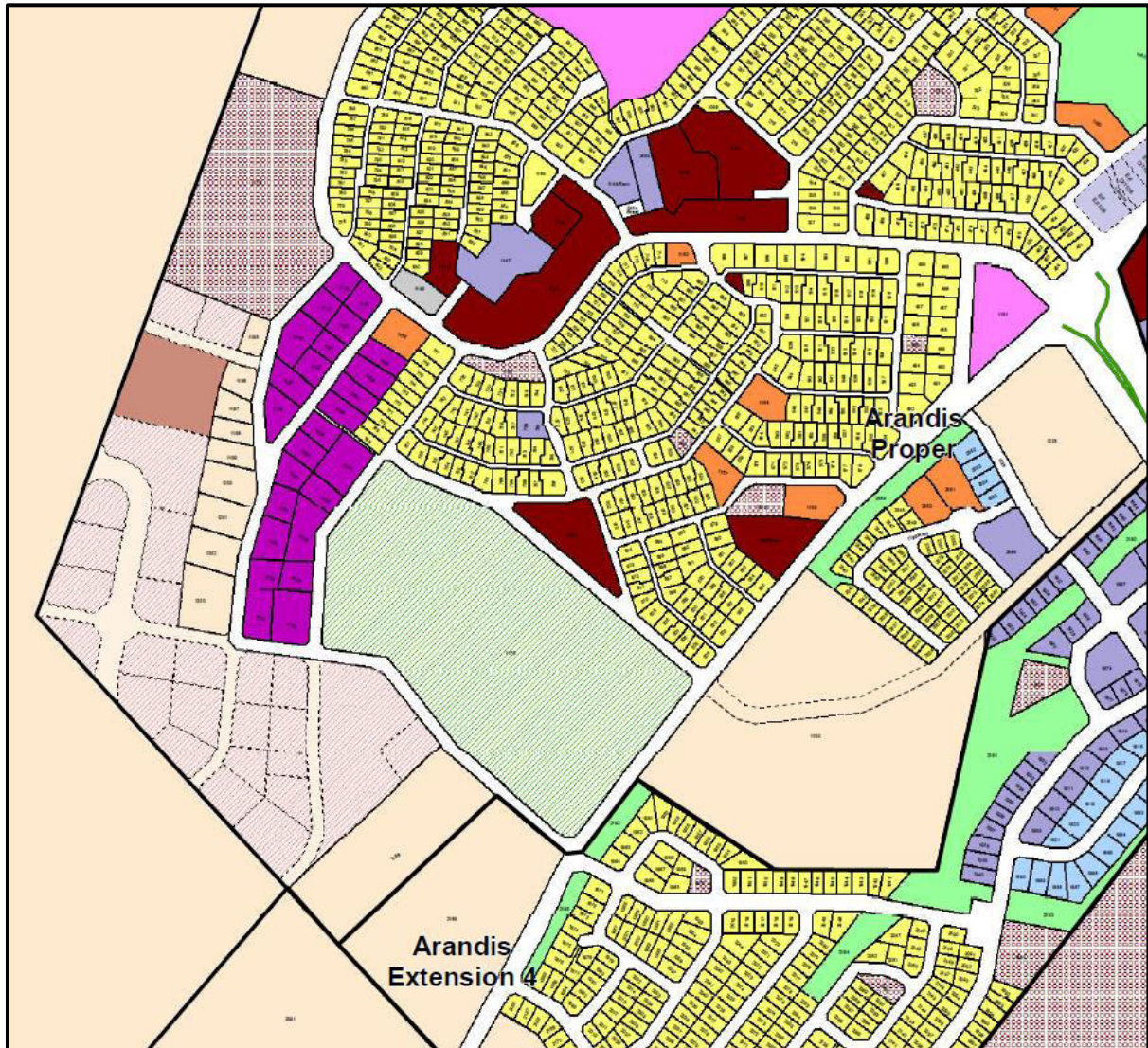


Figure 2: Zoning map for Arandis Extension 4

## 2.4 Site infrastructure

The site is enclosed in a high wall fence with a security gate. The site infrastructure includes a site office, maintenance workshop, garage, yard, concrete batching plant and a bunded above ground steel tank with a capacity of 23,000 liter.



Figure 3: Site overview

## 2.5 Plant and Equipment

The company serves a number of plants and equipment that are used for site operations and are refueled on site. These include Mixer trucks, dump trucks, graders, front loader and light delivery vehicles.



Figure 4: Typical Plant and Equipment of CPP Sites

## 2.6 Operation of Consumer Installation tank

CPP Suremix has entered into a long-term agreement with Bachmus Oil & Fuel Supplies for the tanks to install and supply diesel. The fuel is sourced from its bulk storage facility in Walvis Bay and is transported in fuel carried trucks in line with the SANS.



Figure 5: Fuel Supply tank

Fuel (diesel) is stored in an above ground steel tank with a capacity of 23,000 liters. The tank is surrounded by a bund wall



Figure 6: Bunded steel tank

### **3. EMP Implementation: Roles and Responsibilities**

The role players listed in Table 1 above have different responsibilities to play during the operation of the facility as outlined below.

#### **3.1. The Proponent: CPP SUREMIX**

##### Responsibilities

The proponent is represented by a Site Foreman who oversees the operation of the site. The Site Foreman on behalf of the proponent should

- a) Implement the final EMP after approval by DEA and ensure the project complies 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)

#### **3.2 Environmental Control Officer (ECO)**

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

- Ensure that all contractor and sub-contractors are complying with the content of this EMP.
- 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 (biannually) to the Authority

### 3.3 Fuel Supplier

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 EMP 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.

### 3.4 Authorities

#### ***a). Local Authority: Arandis Town Council***

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 Arandis Town Planning Scheme
- 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.

#### ***c) Regulatory Authority: Ministry of Environment, Forestry and Tourism (MEFT)***

Issue the Environmental Clearance Certificate for the establishment and operation, conduct compliance monitoring, review biannual reports and renewal of the ECC.



## **4. 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.

### **4.1 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.

### **4.2 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**.

### **4.3 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.

### **4.4 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.

## 5. LEGAL REQUIREMENTS

### 5.1 Environmental Management Requirements

The activities related to storage and handling of petrol/diesel is part of the activities listed under Schedule 1 of the Environmental Management Act, 2007 that cannot be undertaken without an Environmental Clearance Certificate being obtained as follow.

9.4 The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.

9.5 Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin.

### 5.2 Applicable legislation

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 below.

Table 2: Applicable National Laws

LEGISLATION	PROVISION AND REQUIREMENTS
<b>Constitution of the Republic of Namibia (1990)</b>	National objectives -Guarding against overutilization of biological natural resources, - Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity.
<b>Local Authorities Act, No. 23 of 1992 as amended</b>	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.  <b>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.</b>
<b>Pollution Control and Waste Management Bill, 2003</b>	This Bill serves to regulate and prevent the discharge of pollutants to air and water as well as providing for general waste management.  <b>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.</b>
<b>Environmental Management Act, No.07 of 2007</b>	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><b>Public Health and Environmental Act, 2015</b></p>	<p>The objectives of the PHE Act are to;</p> <ul style="list-style-type: none"> <li>• Promote public health and wellbeing</li> <li>• Prevent injuries, diseases and disabilities</li> <li>• Protect individuals and communities from public health risks</li> <li>• Encourage community participation in order to create a healthy environment</li> <li>• Provide for early detection of diseases and public health risks</li> </ul> <p><b>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 harmful or dangerous to the health of a person within its local authority or the local authority area of another local authority”</b></p>
<p><b>Labour Act (No 11 of 2007)</b></p>	<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><b>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.</b></p>
<p><b>Employment Service Act, 8 of 2011</b></p>	<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><b>Any employment provided whether by the proponent or by contractor at this site must be in accordance with the Labour Act.</b></p>
<p><b>Water Resources Management Act 2004</b></p>	<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><b>Atmospheric Pollution Prevention Ordinance, no. 11 of 1976</b></p>	<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><b>According to the Ordinance, the Local Authority shall control and prevent atmospheric air pollution or emission of noxious or offensive gases by smoke.</b></p>

<p><b>Hazardous Substance Ordinance of 1974</b></p>	<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>
<p><b>Petroleum Products Regulations (2000)</b></p>	<p>The code of practice mentioned in Part A applies to the design, construction and maintenance of electrical equipment referred to in the standard and used in connection with any petroleum products.</p> <p>The code of practice mentioned in Part B applies to the storage, distribution and handling of petroleum products and the installation of storage tanks and other structures, pipework, pumps and plant referred to in the standard and used in connection with petroleum products.</p> <p>The specifications and standards mentioned in Part C applies to the composition of petroleum products referred to in the specifications and standards and imported into or distributed in Namibia by any wholesaler or sold to any consumer by any operator of a retail outlet.</p>
<p><b>Arandis Town Planning Scheme</b></p>	<p>Identify different land use categories, zoning, uses and consent uses.</p> <p>The property is located on the “General Industrial “Area, hence no need for rezoning or alternative sites</p>

## 6. PROPOSED MANAGEMENT AND MITIGATION MEASURES

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

**Table 3: Proposed Mitigation Measures: Operation phase**

Environmental Issue/Impacts	Mitigation Measures	Monitoring	Responsibilities
<b>Legal compliance</b>	Meet the legal requirements by obtaining the following <ul style="list-style-type: none"> <li>• Consumer Installation Certificate from MME</li> <li>• Fitness Certificate from Arandis Town Council</li> <li>• Environmental Clearance Certificate from MEFT</li> </ul>	Documents obtained and valid	Proponent (Line Manager/owner)
<b>Fuel Supply</b>	<ul style="list-style-type: none"> <li>• Ensure compliance to the petroleum regulations of Namibia.</li> <li>• Proper management to ensure constant supply.</li> <li>• Record supply problems and take corrective actions.</li> </ul>	Record supply problems and corrective actions taken and compile a bi-annual summary report.	Fuel Supplier
<b>Fuel Storage</b>	<ul style="list-style-type: none"> <li>• The fuel storage tank provided should be as per the Petroleum Industry Part 1: Storage and distribution of petroleum products in above-ground bulk installations.</li> <li>• Although the tank is surrounded by a bund wall, put additional measures in place to collect any oil in the event of a leak, i.e. addition of a drip tray.</li> <li>• Sufficient space should be left in fuel tanks to allow fuel expansion and to prevent leakage of fuel from any underground tanks.</li> </ul>	Fuel spills and leakages	Site Foreman
<b>Fuel Spillage</b>	<ul style="list-style-type: none"> <li>• If any spillage occurs, contaminated soil shall be collected in a holding tray or drum and disposed at a licensed hazardous waste site.</li> <li>• Any spillage of more than 200 liters must be reported to the Ministry of Mines and Energy as per the Petroleum Products Act, 2000.</li> </ul>	Fuel spills and leakages	Site Foreman

	<ul style="list-style-type: none"> <li>•</li> </ul>		
<b>Site Management</b>	<ul style="list-style-type: none"> <li>• Staff at the site and contractors should be educated and informed of their environmental obligations.</li> </ul>	Awareness among all staff	Proponent/Site Forman
<b>Fire control and management</b>	<ul style="list-style-type: none"> <li>• A holistic fire protection and prevention plan is needed. This plan must include an emergency response plan, firefighting plan and spill recovery plan.</li> <li>• 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).</li> <li>• Maintain firefighting equipment, good housekeeping and personnel training (firefighting, fire prevention and responsible housekeeping practices).</li> <li>• Ensure all chemicals are stored according to MSDS and SANS instructions.</li> <li>• Maintain regular site, mechanical and electrical inspections and maintenance.</li> <li>• Clean all spills / leaks.</li> <li>• Follow SANS standards for operation and maintenance of the facility.</li> <li>• All dispensers must be equipped with devices that cut fuel supply during fires.</li> </ul>	A register of all incidents must be maintained on a 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.	Site Foremen
<b>Public Health and Safety</b>	<ul style="list-style-type: none"> <li>• Ensure general cleanliness of the building, most importantly the sanitary facilities</li> <li>• Selected personnel should be trained in first aid and a first aid kit must be available on site.</li> <li>• The contact details of all emergency services must be readily available.</li> <li>• 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,</li> </ul>	Any incidents must be recorded with action taken to prevent future occurrences. A report should be compiled every 6 months on all incidents reported. The report should contain dates when training was conducted and when safety equipment and structures were inspected and maintained.	Site Foremen

	<p>flammable etc.).</p> <ul style="list-style-type: none"> <li>• Security procedures and proper security measures must be in place to protect workers and clients.</li> </ul>		
<p><b>Groundwater, Surface Water and Soil Contamination</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• All fueling should be conducted on surfaces provided for this purpose. E.g., Concrete slabs with regularly maintained seals between slabs.</li> <li>• The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.</li> <li>• Proper training of operators must be conducted on a regular basis (Fuel handling, spill detection, spill control).</li> <li>• Any spillage of more than 200 litres must be reported to the relevant authorities.</li> <li>• Spill clean-up means must be readily available on site as per the relevant MSDS.</li> <li>• Any spill must be cleaned up immediately.</li> <li>• The spill catchment traps, and oil water separator should be cleaned regularly, and waste disposed of at a suitably classified hazardous waste disposal facility.</li> <li>• Surfactants (soap) may not be allowed to enter the oil water separator e.g., soap usage on spill control surfaces.</li> <li>• No direct discharge of pollution (wastewater or solid waste) into the waterbodies.</li> <li>• Do not park vehicles or implements with leaking oils next to the waterbodies.</li> <li>• Ensure that sanitary facilities are frequently cleaned and regularly monitored.</li> </ul>	<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>Site Foremen</p>

	<ul style="list-style-type: none"> <li>• Only use cleaning detergents that are environmentally friendly</li> </ul>		
<b>Water and Energy demand</b>	<ul style="list-style-type: none"> <li>• Ensure supply of potable water</li> <li>• Enforce energy and water conservation measures</li> </ul>	A report should be compiled every 6 months of all complaints received and actions taken.	Site Foremen
<b>Air Quality</b>	<ul style="list-style-type: none"> <li>• Personnel issued with appropriate masks where excessive dust or vapours are present.</li> <li>• Employees should be coached on the dangers of fuel vapours.</li> <li>• Vent pipes must be properly placed as per SANS requirements.</li> </ul>	A complaints register should be kept for any dust-related issues and mitigation steps taken 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.	Site Foremen
<b>Waste generation</b>	<ul style="list-style-type: none"> <li>• Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers, contaminated rugs, paper, water and soil).</li> <li>• 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.</li> <li>• See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers.</li> <li>• All hazardous waste should be transported to Walvis Bay for proper handling</li> <li>• Waste reduction measures should be implemented and all waste that can be re-used /recycled must be kept</li> </ul>	A register of hazardous waste disposal should be kept. This should include type of waste, volume as 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	Site Foremen



	<p>separate.</p> <ul style="list-style-type: none"> <li>• Ensure adequate disposal storage facilities are available.</li> <li>• Ensure waste is not blown away by wind.</li> <li>• Prevent scavenging (human and non-human) of waste storage.</li> </ul>	and reporting to be included in a bi-annual report.	
<b>Noise</b>	<ul style="list-style-type: none"> <li>• Follow World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment.</li> <li>• Keep the volume of public address systems on a level where neighbours are not impacted on.</li> <li>• Hearing protectors as standard PPE for workers in situations with elevated noise levels.</li> </ul>	Maintain complaints register. Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.	Site Foremen
<b>Traffic Impact</b>	<ul style="list-style-type: none"> <li>• Erect clear signage regarding access and exit points at the facility. Clear indications of fuel deliveries and related down-time communicated to motorists.</li> <li>• Tanker trucks delivering fuel should not be allowed to obstruct any traffic in surrounding streets.</li> <li>• Have parking spaces for motorists utilizing the shop and offices.</li> <li>• The placement of signs to warn and direct traffic will mitigate traffic impacts.</li> </ul>	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.	Site Foremen
<b>Visual Impact</b>	<ul style="list-style-type: none"> <li>• Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures is maximised and a low visual impact is maintained.</li> </ul>	A report should be compiled every 6 months of all complaints received and actions taken.	Site Foremen
<b>Cumulative Impact</b>	<ul style="list-style-type: none"> <li>• Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.</li> <li>• 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</li> </ul>	Annual summary report based on all other impacts must be created to give an overall assessment of the impact of the operational	Site Foremen

	mitigations are insufficient	phase.	
<b>Skills, technology and Development</b>	<ul style="list-style-type: none"> <li>• If the skills exist locally, contractors must first be sourced locally, then the region and then nationally. Deviations from this practice must be justified.</li> <li>• Skills development and improvement programs to be made available as identified during performance assessments.</li> <li>• Employees to be informed about parameters and requirements for references upon employment. Give priority to local people</li> </ul>	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.	Site Foremen
<b>Employment opportunities</b>	<ul style="list-style-type: none"> <li>• The proponent must employ local Namibians where possible. Deviations from this practice must be justified.</li> </ul>	Bi-annual summary report based on employee records.	Site Foremen

## **7. ENVIRONMENTAL MANAGEMENT SYTEM (EMS)**

The Environmental Management System (EMS) is an internationally recognized and certified management system 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. The 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

## 8. DECOMMISSIONING PHASE

There is an inherent environmental risk with fuel storage and handling, therefore the removal of redundant infrastructure should be done expeditiously. While residual leftovers in the storage and handling of fuel may represent a small portion of the total capacity, those seemingly insignificant small amounts of product can pose a serious health and safety risk to personnel and the surrounding environment. Hence decommissioning activities require close management. The decommission of the tank is the responsibility of the fuel supplier (Bachmus Oil & Fuel Supplies). The fuel supplier will follow the necessary procedures prescribed in

The following procedures should be followed for the decommissioning of the tank onsite.

- The decommissioning of the fuel tank will generally begin by cleaning the tank internally. Cleaning the tank internally will help to eliminate the environmental hazard, as all liquid and sludge would be removed from the tank.
- The site should be rehabilitated by removing all contaminated soil and unwanted structures
- All waste removed from any fuel or oil tank should be consigned as hazardous waste, thus, a full audit trail should be created from the point of origin to disposal
- All hazardous waste should be transported to Walvis Bay Landfill site
- All general waste should be collected and disposed of at the Arandis dumpsite. Recyclables should be collected and send to local scrap yards

## 9. 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. The proponent must ensure that compliance monitoring is conducted at different intervals/frequencies throughout the operational life span as indicated in the table below.

**Table 4: Monitoring during operation phase**

The issue to be monitored	Monitoring Objectives	What needs to be monitored	Frequency and means of Monitoring
<b>Spills and leaks</b>	Prevent environmental pollution	-Overflows, leakages, pipe bursts, etc.	Daily inspections and meter reading
<b>Public Health risks</b>	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.
<b>Occupational health risks</b>	Ensure health and safe working condition	Chemical exposure and presence of health hazards	Daily physical observations.
<b>Waste management</b>	Prevent environmental pollution and contamination.	Litter chemical storage & handling, cleanliness, Chemical composition of sludge.	Daily inspections and physical observation.  -quarterly chemical testing
<b>Implementation of the EMP</b>	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.

## 10. 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, fuel, chemicals, etc.
- Fire outbreak
- Accidents

**Table 5: Emergency response plan**

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

## **11. CONCLUSION**

The objective of the amendments to the initial the EIA study was to define the range of the impacts associated with the proposed additional works and propose mitigation measures to address the identified impacts. There were no fatal flaws identified during this assessment, hence, it is concluded that, if all mitigation measures are implemented as outlined in the EMP, it is anticipated that the consequences and/or probability of the predicted negative impacts will be managed/reduced. 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.

The proponent shall also ensure to avail necessary resources (i.e., human, financial etc.,) and provide training to all parties for the full implementation of the EMP. The implementation of the EMP can be combined with the company Health, Safety and Environmental (SHE) Policy. Monitoring of certain environmental parameters and preparation of biannual reports must be ensured as outlined in this EMP during the life span of the project.

Upon approval by the authorities, this EMP shall be considered legally bidding 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:
Line Manager		Phone No.:

## PART 2: ENVIRONMENTAL ASPECTS

ENVIRONMENTAL ASPECT/IMPACT	ENVIRONMENTAL COMPLIANCE (AS PER EMP REQUIREMENT?)		<i>Remarks (specify the location, a good practice observed, causes of non-conformity, and proposed action)</i>
	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: \_\_\_\_\_

Line Manager 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