Updated Draft Environmental Management Plan (EMP) for:

The Operation of the National Oil Storage Facility in Walvis Bay, Erongo Region

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1 INTRODUCTION

1.1 Project Background and Locality

This Environmental Management Plan (EMP) audit report is prepared on behalf of the National Petroleum Corporation of Namibia (Pty) Ltd (hereinafter referred to as NAMCOR or The Proponent). NAMCOR is the national distributor of a diverse range of products from its network of depots around the country supplying diesel, petrol, paraffin, lubricants and engine oils.

The Proponent was appointed by the Government of the Republic of Namibia to manage and operate the new state-of-the-art National Storage (NOSF) in Walvis Bay. The NOSF site has a capacity of 75 million litres of fuel in total. The storage tanks consist of:

- Diesel 1x5,000m3 tank and 2x20,000m3 tanks
- ULP consists of 2x10,000m3 tanks
- JET-A1 1x 5,000m3 tank
- HFO 1x5,000m3 tank

The locality map of the facility is shown in Figure 1. As part of the Environmental Management Act (EMA) No. 7 of 2007 and its Environmental Impact Assessment (EIA) Regulations on listed activities that are required to be environmentally cleared for them to be implemented in the environment, the facility was issued with an Environmental Clearance Certificate on 21 February 2014.

The updated EMP report provides a summary of the environmental performance of the bulk fuel storage property/facility. The audit report is prepared as per the requirements of the EIA Regulations No. 30 of 2012 gazetted under the EMA No. 7 of 2007, and a condition of the ECC issued for operation of the facility.

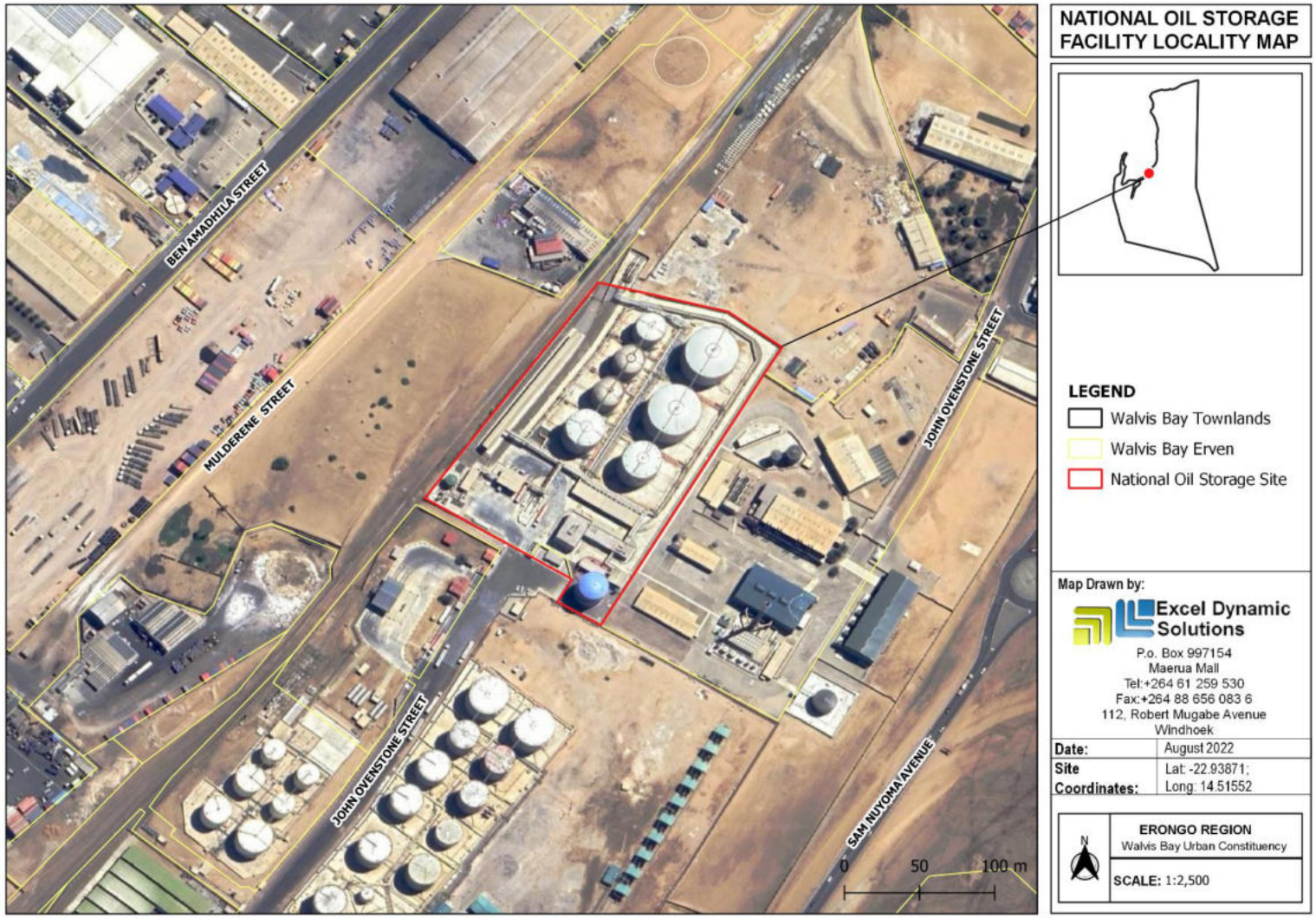

Figure 1-1: The Locality of the NOSF in Walvis Bay

1.2 The Purpose of the Draft Environmental Management Plan (EMP)

An Environmental Management Plan (EMP) Report provides the link between the impacts identified in the EIA Process and the required environmental management measures and preparedness responses on the ground during project implementation and operation, as assessed during compliance monitoring.

The compilation of this updated EMP and/or Audit Report is one of the requirements (scope of work) presented to Excel Dynamic Solutions Pty Ltd (EDS Namibia) by NAMCOR, to ensure environmental compliance with reference to the EMP, which was prepared as a legal requirement by Section 8 of the EMA and its 2012 EIA Regulations.

The Report serves to document the progress made, in terms of environmental compliance, on the operations of the fuel storage facility. The phases of the project are summarized below:

- **Operation and maintenance -** This is the phase during operation where the Proponent carries out storage of fuel in bulk capacity and undertakes related activities on site. It is also the phase during which maintenance of the area, equipment and machinery is be done by the Proponent.
- **Environmental Monitoring Requirements** - To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented alongside the mitigation plan.
- **Decommissioning and Rehabilitation** – This is the phase during which operations at the fuel storage facility cease. The decommissioning of operations may be considered once the need for the fuel storage facility diminishes. During the operational phase and before decommissioning, the Proponent will need to put site rehabilitation measures in place.

It is expected of NAMCOR and their employees and/or contractors, in guiding them during the operations on site, to ensure that impacts on the environment are avoided or limited if they cannot be avoided completely.

1.3 Appointed Environmental Assessment Practitioner

Excel Dynamic Solutions (Pty) Ltd has been appointed as the external Environmental Control Officer (ECO) to ensure EMP compliance of operations at the NOSF. This is done in line with the conditions of authorization, in performing environmental monitoring and auditing, in order to produce an updated EMP and environmental compliance report for NAMCOR. The audit period is March 2014 – December 2022.

This document was compiled by Mr. Nerson Tjelos.

The purpose of this document is, therefore, to guide environmental management throughout the operation and maintenance phase (including upgrading works), and decommissioning phase:

2 LEGAL FRAMEWORK: PERMITTING AND LICENSING

The Proponent has the responsibility to ensure that the project activities conform to the principles of the EMA and must ensure that employees act in accordance with such principles. Table 2-1 below lists the requirements of an EMP as stipulated by Section 8 (e) of the EIA Regulations, primarily on specific approvals and permits that may be required for the project activities.

Table 2-1: The list of applicable of legal requirements and permits to the project activities

Legislation / Policy / Guideline: Custodian	Relevant Provisions	Project Activity Licensing and Contact Details
Environmental Management Act (No. 7 of 2007) and its 2012 Environmental Impact Assessment (EIA) Regulations (Government Gazette (GG) No. 4878 Government Notice (GN) No. 30)	The EMA has stipulated requirements to complete the required documentation to obtain an Environmental Clearance Certificate (ECC) for permission to undertake certain listed activities.	The ECC should be renewed every 3 years, counting from the date of issuance. Contact details at the Department of Environmental Affairs and Forestry (DEAF), Ministry of Environment, Forestry and Tourism (MEFT), Office of the Environmental Commissioner **Mr. Timoteus Mufeti** **Tel: +264 61 284 2701**
Petroleum Products and Energy Act (No. 13 of 1990) Regulations (2001):	Regulation 3(2)(b) states that "No person shall possess or store any fuel except under authority of a licence or a certificate, excluding a person who possesses or stores such fuel in a quantity of 600 litres or less in any container kept at a place outside a local authority area"	The Proponent should obtain the necessary authorisation form the MME for the storage of fuel on-site. **Mr. Carlo Mcleod (Ministry of Mines and Energy: Acting Director – Petroleum Affairs)** **Tel: +264 61 284 8291**

Legislation / Policy / Guideline: Custodian	Relevant Provisions	Project Activity Licensing and Contact Details
Road Traffic and Transport Act 52 of 1999 and its 2001 Regulations	Provides for the control of traffic on public roads and the regulations pertaining to road transport, including the licensing of vehicles and drivers.	A site access road permit from the existing road should be formalized by applying for it and obtained from the Roads Authority. **Mr. Eugene de Paauw (Roads Authority – Specialist Road Legislation)** **Tel.: +264 61 284 7027**

3 EMP IMPLEMENTATION ROLES AND RESPONSIBILITIES

The Proponent has the overall responsible for the implementation of the EMP. However, the Proponent may delegate this responsibility or part of it to someone else at any time, as they deem necessary. The roles and responsibilities of all delegates/parties involved in the effective implementation of this EMP are set in Table 3-1.

Table 3-1: The list of responsible parties and their roles in implementing the EMP

Role (Person and or Institution)	Responsibilities
The Proponent	-Managing the implementation of this EMP and updating and maintaining it when necessary. -Management and monitoring of individuals and/ or equipment on-site in terms of compliance with this EMP and issuing fines for contravening EMP provisions.
Environmental Control Officer (ECO) or Safety, Health & Environmental (SHE) Officer	Environmental Control Officer (ECO) or SHE Officer. The ECO will have the following responsibilities: -Management and facilitation of communication between the Proponent and Interested and Affected Parties (IAPs) regarding this EMP. -Conducting site inspections of all areas with respect to the implementation of this EMP (monitor and audit the implementation of the EMP). -Advising the Proponent on the removal of person(s) and/or equipment not complying with the provisions of this EMP.

Role (Person and or Institution)	Responsibilities
	-Undertaking an annual review of the EMP and recommending additions and/or changes to this document.
Site Operator	-Collaborate with the ECO to ensure the implementation of the EMP, especially on the technical aspects and operations of the project operations.

4 IMPACTS AND ENVIRONMENTAL MANAGEMENT AND MITIGATION MEASURES

4.1 Key Identified Negative Impacts

Potential Negative impacts:

- Improper handling fuels may lead to pollution of soil and water resources.
- Noise (nuisance)
- Vehicular traffic: potential increase in local traffic during fuel delivery and loading/offloading of other services and goods.
- Waste generation leading to environmental pollution.
- Occupational / community health & safety risks
- Accidental fire outbreaks and Site safety and security

The recommended measures to be implemented to mitigate and manage the adverse negative impacts listed above are provided under the next chapter and Tables.

4.2 Environmental Management and Mitigation Measures- Operation and Maintenance

The management actions are aimed at avoiding the above-listed potential negative impacts, where possible. Where it is impossible to avoid these impacts, measures are provided to reduce the impacts' significance. The measures recommended (Table 4-1) for the potential impacts are as described and assessed in the Scoping Report were based on the operations phase.

Table 4-1: The Environmental management and mitigation measures for the Operational and Maintenance Phase

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Site Operations and Maintenance Phase					
EMP implementation and training	Lack of EMP awareness and implications thereof	-EMP trainings should be provided to all new workers on site. -All site personnel should be aware of necessary health, safety, and environmental considerations applicable to their respective work. -The implementation of this EMP should be monitored. The site should be inspected, and a compliance audit done throughout **the project activities, monthly.** -Implement an EMP non-compliance penalty system onsite.	-Compliance monitoring conducted bi-annually and should be recorded. -The ECC is renewed every 3 years -Bi-annual reports -Records of EMP training conducted.	-ECO	Throughout the project cycle
Bulk fuel supply	Insufficient and inconveniences due to the unavailability of bulk fuel supply would lead to interruption of services	-Ensure that the Fuel Storage Facility has sufficient fuel always. -The Storage Facility should consider putting up business arrangements with local and regional small business such as fuel stations that are interested in buying bulk fuel for further supply in their areas	-There is always sufficient fuel supply for customers -Information is shared with regional business to enter into supply agreements with NAMCOR for their businesses	-Proponent	Throughout the project cycle and when deemed necessary
Employment opportunities	Unfair practices of labour recruitment an opportunity may lead to conflicts	-It should be mandatory to contractors to give all unskilled and semi-skilled work to be given to the locals before considering outsiders (anyone from outside Walvis Bay). -There should be transparency in the notification of anticipated work opportunities and number of positions onsite.	-There is a fair recruitment process -Locas are given preference for the work they can perform (positions they can occupy).	-Proponent (Human Resources Department)	When deemed necessary during operations

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		-Equal opportunities should be given to both men and women, where possible. -Have a plan to meet the Labour Act's requirements when retrenchment of staff is considered. -Where possible staff can be relocated to another facility or town where business continues in the same way.			
Goods and services procurement	The procurement of goods and service from outsiders over local business may lead to conflicts and overlooking local suppliers	-The procurement of goods and services should follow a fair and transparent process. -Procurements for goods and services should be open only to local and Namibian companies with strong local participation. A percentage of the scope should be reserved for Small-Medium Enterprise (SME) contractors who may be recruited on a sub-contract basis to build local capacity. -The business opportunities such as cleaning services and site maintenance should be given to local companies	-Goods and services are procured from Walvis Bay -Local businesses are considered for procurement opportunities	-Proponent (Procurement Department)	When deemed necessary during operations
Soils	Physical soil / land disturbance and loss of topsoil during continual site improvements	-The topsoil that was stripped from certain site areas to enable project works and can be returned to its initial position, should be returned. This is to avoid unnecessary stockpiling of site soils which would leave them prone to erosion. -All trenches and pits excavated on site should be backfilled and areas rehabilitated.	-No proliferation of informal vehicle tracks. -No new erosion gullies.	-ECO	Throughout the project cycle
Site Fires	Accidental fire outbreaks and Explosion risks	-Safe Offloading/Loading Procedures must be followed: -No locomotives may enter the rail gantry – fire risk.	-No wildfires recorded caused by site personnel	-Proponent -ECO	Throughout the project cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		-Coupling of hoses should be tight and old perished materials should be replaced before leaks occur. -Use non-sparking tools and explosion-proof equipment. Use in well-ventilated area away from all ignition sources. -Keep product away from high-energy ignition sources, heat, sparks, pilot lights, static electricity, and open flames. -Warning signs of ‘’NO SMOKING’’ and ‘’NO THROWING USED CIGARETTES near or inside the site’’ should be clearly written and pasted around the site and rail siding. -Consider fencing the site using concrete wall (instead of a see-through fence) to reduce the risk of smokers throwing newly used cigarettes into the Storage Facility or even tanks. -The site fire extinguishers should be serviced accordingly, and personnel trained on how to use them. -No open fires to be created by project personnel onsite. -Potential flammable areas and structures such as fuel storage tanks should be marked as such with clearly visible signage. -The contact details of fire services should be readily and visibly displayed in both the office and warehouse buildings for site personnel. -All fire precautions and fire control at the site must be in accordance with SANS 089-1, or better. Firefighting measures as per the Material Safety Data Sheets of the product should be adhered to.	-Fire extinguishers are readily available and up to date with service	-Site Operator	

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		-All personnel must be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials (e.g., rubbish, dry vegetation, and hydrocarbon-soaked soil) from the vicinity of the gantry and tank areas. Regular inspections should be carried out to check for these materials at the site.			
Storage and handling of hydrocarbons in relation to fire hazards	The risk of fire outbreaks due to poor storage and handling of hydrocarbons and other flammables substances	-Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product -Emergency training and an emergency drill program must be implemented to be given at least every 6 months on Emergency Procedures.	-All fire procedures and measures are implemented -All personnel are trained and understand these requirements	-ECO -Site Operator	Throughout the project cycle
	Safe Offloading Distance in relation fire occurrences	-The distance from the main railway line to the gantry railway line must meet the required safety distance for offloading. If the distance does not meet the stipulated requirements, then a concrete protection wall must be erected between the gantry railway line and the main railway line. -Regular testing of automated fire and leak response systems. -Record any irregularities and refer to operation manuals provided by MME for the monitoring of bulk fuel tanks.	-The safe offloading and loading distances are adhered to -Fire emergency procedures are understood by site personnel and personnel trained on responsiveness.	-ECO -Site Operator	Throughout the project cycle
Site safety and security	Compromising site security and safety	-The entrance should be equipped with an alcohol testing device to ensure that no visitor or employee is allowed onsite when under the influence of alcohol or any narcotic substances.	-The site fencing and all raised security concerns are up to standards	-Proponent -Site Operator	Throughout the project cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		-A warning siren should be installed at the site office building to notify the site employees, contractors, and visitors of danger. -the site should be equipped with 24-hour security surveillance in case of opportunistic activities such as theft and vandalism.			
Occupation and community health and safety	Project related injuries and other health and safety related issues on personnel and locals	-As part of their induction, the Project personnel should be provided with an awareness training of the risks of mishandling equipment and materials on site as well as health and safety risk associated with their respective jobs. -The contact details of ambulance and other extensive health care services should be readily and visibly displayed in both the office and warehouse buildings for site personnel. -the First aid kit should always be fully furnished and ensure that 2 or 3 site personnel ate trained on administering first aid. -Employees and visitors should be properly equipped with adequate personal protective equipment (PPE) such as coveralls, gloves, safety boots, earplugs, or safety glasses (depending on the job and site area visited, etc. -The heavy vehicle, equipment and fuel storage area should be properly secured to prevent any harm or injury to the Proponent's personnel. -Protective equipment such as handrails should be installed on top of rail or road tankers.	-Comprehensive health and safety plan for all project activities compiled. -Occupational Health and Safety Personnel -Health and Safety Trainings -Fully equipped first aid kits onsite -Trained workers to administer first aid	-ECO -Site Operator	Throughout the project cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		-The Material Safety Data Sheets (MSDS) should be reviewed, and training provided to all site personnel. -An emergency preparedness plan should be compiled, and all personnel appropriately trained. -Personnel should not be allowed to drink alcohol prior to and during working hours nor allowed on site when under the influence of alcohol as this may lead to mishandling of equipment which results into injuries and other safety risks. -The site areas that are considered risks should be equipped with "danger" or "cautionary" signs written in English, and Afrikaans for easy understanding by the residents (locals).			
Stormwater management	rainwater stagnation and possible overtopping during rainy seasons (site damage and flooding)	-Stormwater management systems should be improved and incorporated into the site layout to ensure that the rainwater is collected and diverted to specific rainwater collection area (point) and not idle on site. -A runoff diversion ditch must be constructed and maintained.	-Stormwater discharge systems are improved and incorporated in the continued site improvements	-Proponent	During site improvement
Water Resources Use	Over-abstraction (water demand and availability)	-Water reuse/recycling methods should be implemented as far as practicable. -Project water storage tanks should be inspected daily to ensure that there is no leakage, resulting in wasted water. -Water conservation awareness and saving measures training should be provided to all the project workers in both phases so that they understand the importance of conserving water and become accountable	-No water leakages from site water storage tanks -Water is recycled where possible	-ECO	Throughout the project life cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Soils and water resources	Soils and water resources pollution	-Spill control preventive measures should be in place on site to management soil pollution, thus preventing and or minimizing soil and water resources pollution. -The underground storage tanks should be equipped with double layer to minimize the pollution of groundwater in case of tank burst or leaks. -The fuel tanks should be equipped with fuel leakage detectors to ensure that the leak is detected on time to avoid major leakage leading to significant pollution to soil and groundwater. -Spill control structures and procedures must be in place according to SANS 089-1 and SANS 089-3 standards or better, including impounding around the loading areas by bunding with appropriate slopes of 1:100. -All fuelling should be carried out on dedicated surfaces, i.e., concrete slabs with regularly maintained seals between slabs. -Any spillage of more than 200 litre must be reported as per the Petroleum Products License. -Spill clean-up kit must be available on site as per the relevant Material Safety Data Sheets. -Personnel should be sensitized on the impacts of soil pollution and advised to follow appropriate fuel delivery and handling procedures. -Ensure basic Spill Prevention, Control, and Countermeasure (SPCC) Plan training for all personnel. -Position tankers over bunded areas to prevent soil contamination, especially during rainy season to prevent	-No complaints of pollutants on the soils and eventually in the water due to project activities -No visible oil spills on the ground or pollution spots. -Sufficient waste containers provided onsite -Non-permeable material to cover the ground surface at areas where hydrocarbons and potential pollutants are utilized.	-ECO	Throughout the project life cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		runoff to nearby drainage systems or infiltration towards the water table. -Polluted soil should be removed immediately and put in the designated hazardous waste storage containers for later disposal. -Drip trays must be readily available at filling areas and monitored to ensure that accidental fuel spill is cleaned on time (soon after the spill has happened). -Polluted soil must be collected and transported away from the site to an approved and appropriately classified hazardous waste treatment facility. -The oil-water separator should be properly and regularly maintained (drained and cleaned) by a specialized contractor to ensure that the levels of oil in the released water do not go beyond the limits of the pit. -Washing of equipment contaminated hydrocarbons, as well as the washing and servicing of vehicles should take place at a dedicated area (impervious surface), where contaminants cannot contaminate soil or water resources.			
Biodiversity	Loss Fauna and Flora	-Avoid unnecessary removal of nearby vegetation, thus promoting a balance between biodiversity and project operations. -Avoid the killing or hurting of all kinds of animals, birds and reptiles encountered onsite. -Environmental awareness on the importance of biodiversity preservation should be provided to workers.	-No killing or disturbance of biodiversity -Visible preservation of onsite vegetation	-Site Operator -ECO	Throughout the project cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Road use and safety	Increase in vehicular traffic flow	-The transportation of fuel should be limited to twice a week only to reduce the pressure on local roads. -Ensure that the access roads are frequently maintained and have sufficient road signs. -Ensure that the fuel trucks do not use roads that pass-through town to avoid traffic congestions owing to slow moving heavy trucks. -The heavy truck loads should comply with the maximum allowed speed limit for respective vehicles while transporting materials and equipment/machinery on the public and access roads is 40km/h. -Vehicles drivers should be in possession of valid and appropriate driving licenses and adhere to the road safety rules. -Drivers should drive 40km/hour and be on the lookout for people on roadsides, especially children. -Vehicle's drivers should not be allowed to operate vehicles while under the influence of alcohol. -The deliveries and collection to and from site should be done during weekdays between the hours of 8am and 5pm.	-No complaints from members of the public regarding vehicular traffic issues related to the project activities. -A formal road access permit has been obtained from Roads Authority -All personnel operating the project vehicles and machinery are appropriately licensed and possession of valid driving licenses. -Demarcated areas for parking, offloading, and loading zones are on sites.	-Proponent -ECO	Throughout the project life cycle
Archaeology and heritage	Accidental disturbance of archaeological or heritage objects	-Adhere to the provisions of Section 55 of the National Heritage Act in event significant heritage and culture features are discovered when conducting site upgrading works that require digging or trenching. -When the removal of topsoil and subsoil on the site for site upgrading purposes, the site should be monitored for	-Preservation of all artefacts and objects that are discovered on and around project site during earthworks	-Site Operator -ECO	As and when required, i.e., and during site upgrading works

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
		subsurface archaeological materials by Environmental personnel.			
Littering and waste management (general waste and sanitation)	Environmental Pollution	-Project personnel should be sensitized to dispose of waste in a responsible manner and not to litter. -Ensure that there are no wastes left on the sites at the end of each day. -All domestic and general operational waste produced daily should be contained onsite until such that time it is removed by the Municipal waste removal staff / contractor. -No waste may be buried or burned on site or anywhere else. -Maintain separate waste bins for different wastes, i.e., hazardous, and general/domestic waste should be in separate waste bins. -A penalty system for irresponsible disposal of waste on site and anywhere in the area should be implemented. -Used fuels should be contained on site and disposed of in accordance with municipal waste disposal standards. -An emergency plan should be available for major/minor spills at the site during operations and maintenance.	-No visible litter within and around the Project area owing to the Project -Provision of sufficient waste storage containers -Waste management awareness -Waste disposal permits to municipalities -Environmental, Health and Safety Statements and Policy in place -Waste storage containers	-ECO	Throughout the project cycle
	Wastewater (sewage)	-Ensure that there are sufficient and accessible toilets for both day and night shift (for security guards)	-Adequate toilet and basic ablution facilities on site.	-Proponent -ECO	Throughout the project cycle
Air Quality	Dust generation, fumes and fuel	Vehicles should only be driven at the authorized site speed to avoid dust generation onsite and surroundings.	-No complaints from the public about vehicle	-Site Operator	Throughout the project cycle

Aspect	Impact	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
	vapours emission (poor air quality)	-Ensure that the fuel refill and delivery is limited to working days to minimize heavy vehicle-related dust level in the area from the unpaved/untarred access roads. -The heavy vehicles and fumes generating equipment (during maintenance) should not be left idling when not in use. -The venting systems and procedures should be designed according to South African National Standards to minimize fuel vapour emissions	emissions and dust generation. -Visible efforts to curb dust	-ECO	
Noise	Nuisance	-Noise from operations' vehicles and equipment on the sites should be at acceptable levels. -The project activities should not be carried out during the night or before 08h00 in the morning and should be carried out during weekdays only. -Working hours, including site upgrading works should be restricted to between 08h00 and 17h00 to avoid noise and vibrations generated by equipment and the movement of vehicles before or after hours. -Site workers and contractors should be equipped with personal protective equipment (PPE) such as earplugs to reduce exposure to excessive noise.	-No complaints from local communities such as neighbours about excessive noise from site -Noise protective equipment for workers	-Site Operator -ECO	Throughout the project cycle

4.3 Environmental Management and Mitigation Measures- Decommissioning

The measures provided in Table 4-2 below are aimed at decommissioning the Storage Facility and associated infrastructure, when the Proponent can no longer operate or supply fuel from the Storage Facility. These measures will be implemented to ensure that the Storage Facility site does not pose an environmental and social risk post its operations.

The first step to decommissioning a Storage Facility and its infrastructures, particularly the fuel tanks is to:

- Notify to the licensing authority: The Petroleum Officer / Commissioner at the Ministry of Mines and Energy must be advised on which course of action it is proposed to take to render a decommissioned tank safe and can be in attendance when tanks are filled.

Table 4-2: The Environmental management and mitigation measures for the Decommissioning Phase (as adopted from DP Fuel Tank Services, 2016)

Aspect	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Decommissioning Phase and Site Rehabilitation				
Fuel tanks	**1. Abandoning tanks in-situ**:[1] Any tank to be abandoned in place should be rendered safe by one of the following methods: -by filling with cement slurry using the following procedure: -drain back all pipelines associated with the tank and remove all residual petrol the tank must then be bottomed out which involves the removal of that quantity of petrol and deposits which remain below the pump suction pipeline, using a hand pump or a flame-proof electrical pump. This procedure should be performed by a specialist contractor -the atmosphere in the tank must inerted by means of nitrogen, nitrogen foam or carbon dioxide (see guidance on these inerting methods in HSE Guidance Note CS 15) -disconnect all pipework entering the tank via the tank lid. Flush through and cap at each end all pipelines previously connected to the tank or compartment -remove the tank lid. (It should be remembered that this can be a hazardous exercise unless great is care taken.) In the case of old tanks without tank	-Implementation of the measures	-Proponent (by appointing a specialized contractor for decommissioning fuel tanks)	Upon cessation of operations

[1] DP Fuel Tank Services. (2016). Methods of Fuel Tank Decommissioning: https://dptanks.co.uk/methods-fuel-tank-decommissioning/

Aspect	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
	lids the suction pipe should be unscrewed leaving a hole approximately 75mm through which slurry of a thin consistency can be poured -the area surrounding the tank as far as boundaries permit should normally be classed as a hazardous area whilst filling the tank is taking place and all necessary precautions should be taken to prevent any source of ignition -fill the tank with 20 to 1 mix of concrete slurry. Wherever possible the slurry should be assisted to the extremities of the tanks by means of a vibrating device. (It is important to remember the previous point). It is essential that a Petroleum Officer of the Trading Standards Service is in attendance when the slurry fill takes place. Only when the slurry filing has been completed to the satisfaction of the Petroleum Officer is the manhole chamber to be filled with concrete. **2. Removal of tanks** Before excavation work starts, any tank to be removed from the ground should be rendered safe. For a tank without leaks the following initial procedure should be followed: -drain all pipelines associated with the tank and remove all residual petrol -the tank must then be bottomed out which involves the removal of that quantity of petrol and deposits which remain below the pump suction pipeline, using a hand pump or a flame-proof electrical pump. This procedure should be performed by a specialist contractor -fill the tank or compartment with water to ensure a liquid seal -disconnect all pipelines (except vent pipes) and add water to the tank or compartment until clear water appears at the vent pipe opening -cap or blank off all openings to the tank or compartment flush through and cap at each end all pipelines previously connected to the tank or compartment			

Aspect	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Disposal of tanks	-Any tank which has been removed from its excavation should be disposed of safety as soon as possible. Preparation for and removal by road should be in accordance with the provisions of the current legislation in force at the time. -The person responsible for removal of a tank from a filling station should ensure that the recipient of the tank is made aware of the tank's previous use and of the need to take adequate precautions against fires and explosions when dealing with it. -Cleaning or demolition of any tank on site should not take place without the agreement of the appropriate authority. -The location of any abandoned tank should be recorded in the site register and brought to the attention of any person who subsequently becomes responsible for the site. -Further, the Trading Standards Service (in this case MME) should be made aware of the destination of any tank which has been removed from the ground.	-Implementation of the measures	-Proponent (By appointing a specialized contractor for decommissioning fuel tanks)	Upon cessation of operations
Alternative use of tanks	The tank may be used for the storage of diesel or gas oil providing the petrol tank has had all residual of petrol removed from it and been bottomed out (which involves the removal of that quantity of petrol and deposits which remain below the pump suction pipeline, using a hand pump or a flame-proof electrical pump.) This procedure should be performed by a specialist contractor. -The tank must be filled totally to dispel any petroleum vapour. It is important to remember to drain down the pump and pipelines thereby removing all petrol before introducing an alternative fuel	-Implementation of the measures	-Proponent (By appointing a specialized contractor for decommissioning fuel tanks)	Upon cessation of operations
Infrastructure and structures:	-Dismantling of temporary structures and office spaces and donate them to the Municipality to be utilized for other purposes in the town. Or if cannot	-Structures are sold or donated to the Municipality	-Proponent	At the end of the

Aspect	Management and Mitigation Measure(s)	Key Performance Indicator (KPI)	Implementation Responsibility	Timeline
Decommissioning of services and infrastructures	be donated, these structures can be sold o interested buyers to use for other similar projects within the zoning type of the site area. -All the waste generated from leading to the last days on site should be transported to the municipal dumpsite. -Transport all machinery and equipment as well as vehicles to designated offsite storage facilities.	-Waste transported to approved dumpsites	-ECO	project operations
Rehabilitation funds: The lack of planning for financial and technical resources	-Make provision of both financial and technical resources for decommissioning.	-Records of finances set aside for decommissioning	-Proponent	Updated throughout the project phase
Generated and Accumulated Waste	-All re-usable pipelines, pumps, tanks, valves and other equipment must be removed to another site or sold. -Those items that cannot be used again must be scrapped in the appropriate manner. -Upon demolition of buildings and concrete, the rubble must be removed from the property and taken to an approved dumpsite designated by the Walvis Bay Municipality. -Site Rehabilitation, if necessary, is to be done using the designated funds. -Waste should be sorted accordingly and disposed of at the Municipal waste management sites/facilities. -No waste should be buried nor left scattered on site.	-All waste is disposed of at the respective waste facilities (based on waste types)	-Proponent -ECO	Before complete site closure

Further readings on Decommissioning can be found on some of the following websites:

- https://www.epa.nsw.gov.au/-/media/21p3279-decommissioning-underground-petroleum-storage.pdf

- https://www.nqpetro.com.au/tank-decommissioning/ and https://jwhinchliffetanks.co.uk/fuel-oil-tank-decommissioning-guide/.

Updated Environmental Management Report for the Operation of the National Oil Storage Facility (NOSF) for NAMCOR in Walvis Bay in the Erongo Region

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September 2022

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1 INTRODUCTION

1.1 Project Background

This updated Environmental Management Plan (EMP) report is prepared on behalf of the National Petroleum Corporation of Namibia (Pty) Ltd (hereinafter referred to as *NAMCOR* or *The Proponent*). NAMCOR is the national distributor of a diverse range of products from its network of depots around the country supplying diesel, petrol, paraffin, lubricants and engine oils.

The Proponent was appointed by the Government of the Republic of Namibia to manage and operate the new state-of-the-art National Storage (NOSF) in Walvis Bay. The NOSF site has a capacity of 75 million litres of fuel in total. The storage tanks consist of:

- Diesel 1x5,000m^3 tank and 2x20,000m^3 tanks
- ULP consists of 2x10,000m3 tanks
- JET-A1 1x 5,000m3 tank
- HFO 1x5,000m3 tank

The locality map of the facility is shown in **Figure 1**. As part of the Environmental Management Act (EMA) No. 7 of 2007 and its Environmental Impact Assessment (EIA) Regulations on listed activities that are required to be environmentally cleared for them to be implemented in the environment, the facility was issued with an Environmental Clearance Certificate on 21 February 2014.

The updated EMP report provides a summary of the environmental performance of the bulk fuel storage property/facility. The audit report is prepared as per the requirements of the EIA Regulations No. 30 of 2012 gazetted under the EMA No. 7 of 2007, and a condition of the ECC issued for operation of the facility.

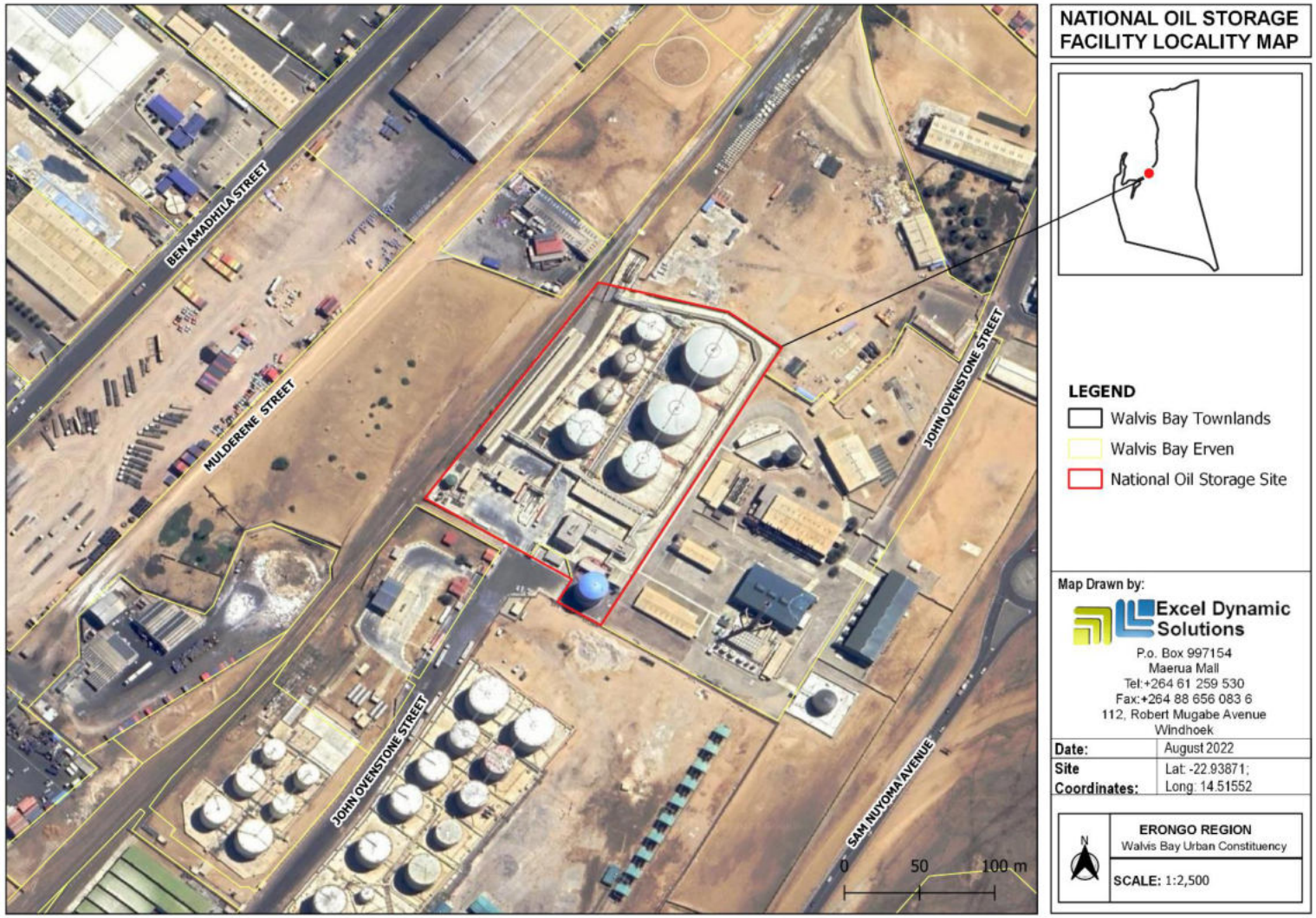


Figure 1: Location of the NOSF in Walvis Bay

1.2 Purpose of the updated Environmental Management Plan Report

An Environmental Management Plan (EMP) Report provides the link between the impacts identified in the EIA Process and the required environmental management measures and preparedness responses on the ground during project implementation and operation, as assessed during compliance monitoring.

The compilation of this updated EMP and/or Audit Report is one of the requirements (scope of work) presented to Excel Dynamic Solutions Pty Ltd (EDS Namibia) by NAMCOR, to ensure environmental compliance with reference to the EMP, which was prepared as a legal requirement by Section 8 of the EMA and its 2012 EIA Regulations.

The Report serves to document the progress made, in terms of environmental compliance, on the operations of the fuel storage facility. The phases of the project are summarized below:

- **Operation and maintenance -** This is the phase during operation where the Proponent carries out storage of fuel in bulk capacity and undertakes related activities on site. It is also the phase during which maintenance of the area, equipment and machinery is be done by the Proponent.
- **Environmental Monitoring Requirements** - To support and ensure that the proposed mitigation measures are achieving the desired results, a monitoring plan must be implemented alongside the mitigation plan.
- **Decommissioning and Rehabilitation** – This is the phase during which operations at the fuel storage facility cease. The decommissioning of operations may be considered once the need for the fuel storage facility diminishes. During the operational phase and before decommissioning, the Proponent will need to put site rehabilitation measures in place.

It is expected of NAMCOR and their employees and/or contractors, in guiding them during the operations on site, to ensure that impacts on the environment are avoided or limited if they cannot be avoided completely

1.3 Appointed Environmental Assessment Practitioner

Excel Dynamic Solutions (Pty) Ltd has been appointed as the external Environmental Control Officer (ECO) to ensure EMP compliance of operations at the NOSF. This is done in line with the conditions of authorization, in performing environmental monitoring and auditing, in order to produce an updated EMP and environmental compliance report for NAMCOR. The audit period is March 2014 – December 2022.

This document was compiled by Mr. Nerson Tjelos.

2 EMP ROLES AND RESPONSIBILITIES

As the ECC holder, NAMCOR is ultimately responsible for the implementation of the updated EMP and has delegated the responsibility for the effective implementation of the EMP to Excel Dynamic Solutions (Pty) Ltd, through the time period covered by this audit.

2.1 Environmental Management Plan Actions and Audit

The aim of the management actions of the EMP is to avoid potential negative impacts where possible. Where impacts cannot be avoided, measures are provided to reduce the significance of these impacts. It is therefore important for the Proponent/Environmental Manager to ensure adherence to the management actions.

Management actions recommended for the potential impacts rated in the EIA carried out for the project activities were based on the three project phases listed below:

- Phase 1: Planning (completed),
- Phase 2: Construction (completed),
- Phase 3: Operational (current and active phase) - **Table 1**, and
- Phase 4: Decommissioning and Rehabilitation (**Table 2**).

The responsible persons at NAMCOR should assess these commitments in detail and should acknowledge their commitment to the specific management actions detailed in the EMP. The compliance, thereof, is measured in **Tables 1** and **2**.

3 ENVIRONMENTAL AUDIT

3.1 Project Activity Summary and Compliance Audit

The construction of the NOSF commenced in 2015. The was no environmental audit conducted on the Property since the granting of the ECC in February 2014. Therefore, this audit assessment and updating of EMP covers the period March 2014 – December 2022.

EDS has performed an Environmental Site Audit, in conformance with the Scope of Work developed in cooperation with the Proponent and the provisions of EMA 7 of 2007. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Facility.

Site observation details are presented in **Appendix A**.

3.2. Management Action Plan: Operation (and Maintenance) Phase

The management actions recommended for this phase are presented in **Table 1** below.

Table 1: Audit on Management Action Plan for the Operation and Maintenance Phase

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
EMP availability	Employees appointed for operation and maintenance on respective site must ensure that all personnel have access to a copy of the EMP	Personnel on the site have been informed of all the Occupational, Health, Safety & Environmental (OHS&E) issues in the EMP	**NON-COMPLIANT**	Environmental Coordinator/Proponent to ensure a copy of the updated EMP is made available at the Property/ Facility and all project workers are aware of the document and understand its contents.
EMP training	-Ensure that the appointed personnel for operation and maintenance on respective site are all aware of necessary health, safety and environmental considerations applicable to their respective works.	Personnel on the site have been informed of all the OHS&E issues	**NON-COMPLIANT**	Environmental Coordinator/Proponent to ensure Property employees and contractors are afforded training opportunities on the updated EMP.

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
Employment and skills transfer	Provision of employment to residents of Walvis Bay	Employment of residents is prioritised	**COMPLIANT**	N/A
Visual Impacts (sense of place)	All the necessary options to improve the aesthetic of the site should be considered and incorporated in the activities of the operation of the facility.	The site is kept tidy and shows consideration of the natural aesthetic of the site and conforms to the standard industrial set up of the neighbourhood.	**COMPLIANT**	N/A
Ecological Impact	All the necessary options to preserve the natural ecological settings	Due to the nature of the operation, there environment is not in the natural state. No fauna or flora on site.	**COMPLIANT**	N/A
Air Quality hydrocarbon vapours are released during delivery due to incomplete containment of fuel and venting of tanker's compartments. Vapours can also be released during the filling of road tankers.	All venting systems and procedures must be designed according to SANS standards	Vapour emissions are minimal and site specific and pose a limited threat to personnel on site.	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
Waste Generation	Contaminated fuel products that can no longer be used in the market must be disposed of in the hazardous waste section of a municipal dump or where possible transferred to waste oil recycling facilities.	Hazardous waste is collected and removed from the site regularly.	**COMPLIANT**	N/A
	All other domestic waste should be disposed of timeously tomaintain visual orderliness, but more importantly, to avoid liquid waste entering the soil substrate		**COMPLIANT**	N/A
	Contaminated soil can be remediated in accordance with accepted procedures at a site dedicated for this purpose.		**COMPLIANT**	N/A
	Liaise with the Municipality regarding waste and handling of hazardous waste.		**COMPLIANT**	N/A
	A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.		**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	Any complaints received regarding waste should be recorded with notes on action taken.		**COMPLIANT**	N/A
Health and Safety	Implementation of a health and safety management systemwill reduce health and safety related risks. Typical mitigating measures within the health and safetymanagement systems are: -Job hazard analysis -Operational and procedural manuals -NEBOSH (or equivalent) certified Health and Safetytraining of staff -Regular inspections and maintenance of all safety equipment and structures -Implement housekeeping rules -Colour coding areas, pipes, equipment and substances -Signage for Personal Protective Equipment (PPE) (e.g., protective clothing like safety boots and hard hats) -Safe work procedures and permits to work.	Implemented. A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures . Health and Safety Training is conducted	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	-Clearance certificates for confined spaces -Emergency response plans should be in place. -Regular reviews of Material Safety Data Sheets(MSDS) in training -First aid training of supervisors and volunteering staffand treatment -Medical procedures and emergency services must beavailable on site or close by -Daily safety moments and/or drills -Protective equipment e.g., handrails on top of rail orroad tankers -Implement regulations for handling fuel			
Noise	The World Health Organization (WHO) guideline on maximum noise levels (Guidelines for Community Noise Levels, 1999) to prevent hearing impairment must be followed. Noise levels in industrial areas are limited to an average of 70 db over a 24-hour period with maximum noise levels not exceeding 110 db during the period.	A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	All noise complaints and additional data must be included in the health and safety report.			
Groundwater Contamination	Spill control structures and procedures must be in place according to SANS 089-1 and SANS 089-3 standards or better, including impounding around the loading areas by bunding with appropriate slopes of 1:100.	Oil Spill Contingency Plan is under development	**COMPLIANT**	N/A
	All fuelling should be carried out on surfaces provided for this purpose. E.g., Concrete slabs with regularly maintained seals between slabs.	No spills were observed on site during the audit visit	**COMPLIANT**	N/A
	The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, including the correct use of sumps and regular reporting of spillages must be audited and corrections made where necessary.	No spills were observed on site during the audit visit A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	Proper training of operators must be conducted on a regular basis.	No training on the content of the EMP and Oil Spill Contingency Plan was done.	**NON-COMPLIANT**	N/A
	Any spillage of more than 200 litre must be reported as per the Petroleum Products License. Spill clean-up kit must be available on site as per the relevant Material Safety Data Sheets	No record and or evidence of spills were observed on site during the audit visit A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A
	Contingencies for the changes in pressure and temperature between Walvis Bay and the destination must be in place when filling rail tankers in Walvis Bay. Avoid overfilling of tanks in Walvis Bay Position tankers over bunded areas to prevent soil contamination, especially	No record and or evidence of spills were observed on site during the audit visit A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	during rainy season to prevent runoff to nearby drainage systems or infiltration towards the water table.			
Fire and Explosion Hazard	Safe Offloading/Loading Procedures must be followed: -No locomotives may enter the rail gantry – fire risk. -Coupling of hoses should be tight and old perished materials should be replaced before leaks occur. -Rail tanks should not be overfilled in Walvis Bay as the changes in pressure and temperature may cause leakages at the release valves on top of the tankers.	No record and or evidence of spills were observed on site during the audit visit A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A
	Safe Handling Procedures must be followed: -Use non-sparking tools and explosion-proof equipment. Use in well-ventilated area away from all ignition sources.	A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	-Keep product away from high-energy ignition sources, heat, sparks, pilot lights, static electricity, and open flames.			
	All liquid hydrocarbon storage containers should be grounded and bonded. Products must be stored where they are not affected by heat.	No record and or evidence of noncompliance were observed on site during the audit visit	**COMPLIANT**	N/A
	Storage and Handling Procedures must be followed: -Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product -Emergency training and an emergency drill program must be implemented to be given at least every 6 months on Emergency Procedures.	A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A
	Safe Offloading Distance must be adhered to: -The distance from the main railway line	Offloading specifications are adhered to according to records audited	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	to the gantry railway line must meet the required safety distance for offloading. If the distance does not meet the stipulated requirements, then a concrete protection wall must be erected between the gantry railway line and the main railway line. -Regular testing of automated fire and leak response systems. -Record any irregularities and refer to operation manuals provided by MME for the monitoring of bulk fuel tanks.			
	Fire Fighting and Fire Prevention: -All fire precautions and fire control at the site must be in accordance with SANS 089-1, or better. Firefighting measures as per the Material Safety Data Sheets of theproduct should be adhered to. -All personnel must be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials (e.g., rubbish, dry vegetation, and hydrocarbon-soaked soil) from the vicinity of the installation. Regular inspections should be carried	A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	out to check for these materials at the site. -All fuel storage and handling facilities in Namibia must comply with strict safety distances as prescribed by SANS. -There must be sufficient water available for firefighting purposes, as according to the SANS 089-1 specifications. -A holistic fire protection and prevention plan, including an emergency response plan, a firefighting plan and a spill recovery plan is needed. -Regular surveys of the fire-fighting equipment and water supply should be conducted. -The operations must have an integrated fire prevention plan, which considers the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990).			
Traffic	Uploading of fuel should remain within the working hours as agreed upon in writing for operations of the facility, to	Operating hours in the EMP are adhered to according to records audited	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	limit traffic congestion.			
	An efficient fuel uploading schedule must be implemented	Fuel uploading are adhered to according to records audited	**COMPLIANT**	N/A
Security	Strict security at entrypoints to prevent unauthorised entry into the facility must be in place. 'Fitness for work' certificates for every security officer to be issued on a monthly basis. Daily alcohol testing should be carried out by an authorised person at the start and end of a shift.	Strict security measures were observed	**COMPLIANT**	N/A
Terrorism	A comprehensive the emergency plan is communicated to all staff and relevant outside institutional bodies. Scheduled drills must include all stakeholders. Suspicious persons, vehicles and activities should be noted and approached with caution.	Proponent is compliant based on secondary information i.e., personal communication	**COMPLIANT**	N/A
COVID-19	The workers should be engaged in health talks and training about the dangers of infections such as COVID-19.	Included in Induction	**COMPLIANT**	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	Provision of any available public health education information to workers.	Included in induction	**COMPLIANT**	N/A

3.3 Management Action Plan: Decommissioning Phase

Table 4: Management action plans for the Decommissioning Phase

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
Waste production	All re-usable pipelines, pumps, tanks, valves and other equipment must be removed to another site or sold. Those items that cannot be used again must be scrapped in the appropriate manner. Upon demolition of buildings and concrete, the rubble must be removed from the property and taken to an approved dumpsite designated by the Walvis Bay Municipality.	The project has not reached this stage	**COMPLIANT**	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	Rehabilitation, if necessary, is to be done using funds designated for the purpose.			
Ecological Impact	Dismantling and removal of any structure should not affect any faunal or floral habitats formed during operation, or any organism that has become dependent on those structures for survival, shelter or breeding.	The project has not reached this stage	**COMPLIANT**	N/A
	The possibility of relocating the fauna or flora must be investigated and executed. Should the species be listed as vulnerable to extinction, the MEFT must be contacted, to determine the appropriate handling of the situation.		**COMPLIANT**	N/A
Employment	Have a plan for meeting the Labour Act's requirements, in the case where the Proponent is considering retrenching of staff. Where possible staff can be relocated to another facility or town where business continues in the same way.	The project has not reached this stage	**COMPLIANT**	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
Dust generation	Regular dust suppression should be included in the Decommissioning Plan, for cases of excessive dust. Personnel should be issued with dust masks for health and safety reasons. Accumulation of rubble that may cause dust must be taken to the dumpsite within reasonable time.	The project has not reached this stage	**COMPLIANT**	N/A
Noise	The World Health Organization (WHO) guideline on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment can be followed during the decommissioning phase.	The project has not reached this stage	**COMPLIANT**	N/A
Visual Impact	Visual impacts could be limited through keeping all decommissioned areas clean and orderly always. Good housekeeping also reduces the risk of injuries	The project has not reached this stage	**COMPLIANT**	N/A
	Notice of the commencement of the decommissioning should be given to the local authorities with an invitation to	The project has not reached this stage	**COMPLIANT**	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	give feedback at any time with regards the visual impact			
	Avoid combining of hazardous and non-hazardous waste by providing separate waste containers (bins) for hazardous and domestic / general waste The project has not reached this stage	**COMPLIANT**	N/A	
Surface and groundwater contamination	Pollutants in the soil and building rubble must be transported away from the site to an approved, appropriately classified, waste disposal site. Confirm MSDS information of any remaining fuels, oils or lubricants that must be discarded. Regulations on sewerage discharge and the chemicals that may and may not be put into the sewerage system must be followed.	The project has not reached this stage	**COMPLIANT**	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
Health, Safety and Security	Adequate health and safety measures must be included in the decommissioning plan to ensure safety of staff on site, and include: -Proper training of operators -First aid treatment -Medical assistance -Emergency treatment -Prevention of inhalation of fumes (fuel) -Protective clothing, footwear, gloves and belts; safety goggles and masks. -Manuals and training regarding the correct handling ofmaterials should be in place and updated as new or updated material safety data sheets become available; Risks might be lower, but still exist especially if tanks must be entered for inspections. Confined space training will be required. -24-hour security surveillance in case of	The project has not reached this stage	**COMPLIANT**	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	opportunistic activities.			
Fire and Explosion Hazard	All relevant regulations and precautions should be in place as it was during the Operational Phase. All personnel must be sensitised about responsible fire protection measures and good housekeeping Regular inspections should still be carried out to inspect and test firefighting equipment and pollution control materials at the fuel storage facility. All fire precautions and fire control at the fuel storage facility must be in accordance with SANS or better. The holistic fire protection and prevention plan should still be utilised.	The project has not reached this stage	**COMPLIANT**	

SUMMARY OF COMPLIANCE

This environmental audit has identified 24 management actions. After onsite observation, three (3) out of the 24 management actions have been identified as ***Non-Compliant***. Twenty-one (21) of the management actions were observed as ***Compliant***. All 18 monitoring actions were identified as ***Compliant***. The large proportion of *Compliant* action recorded for the environmental site audit, therefore, renders the Proponent generally Compliant to the management and monitoring action plans for the project.

NAMCOR has, thus far, paid attention to the environmental aspects and compliance of this project. There were no serious issues of Non-Compliance identified during this Environmental Audit.

The 3 non-compliances may be regarded jointly as one issue, requiring a single solution/intervention. The identified issue has, thus far, had no significant negative effects to the bulk fuel storage operations, the employees and the environment; and is, therefore, regarded as minor. The issue of Partial Compliance identified is:

1. Absence of the EMP copy on site and training of employees on its content that needs to be done by a qualified environmental professional.

Although, considered minor at this stage, training of employees and readily access to a copy of the EMP will be relevant in the cases of observed irresponsible and/or unsustainable activity in the environment.

4 CONCLUSION AND RECOMMENDATIONS

The minor non-compliances identified in this environmental site audit report need corrective action for the operations of the NOSF site to reach a 100% Compliance rate. The assessment has revealed no evidence of HRECs in connection with the Facility. Recommendations for corrective action are as follows:

- Provide a copy of the updated EMP and follow up with training of all involved employees and stakeholders on the EMP content
- Implement a penalty system for EMP Compliance to enforce accountability towards environmental management within Depot operations.

The potential positive and negative impacts stemming from the fuel storage activities were identified, assessed and mitigation measures made thereof. Mitigation measures need to be always adhered to. Most importantly, monitoring of the environmental components described in the Environmental Management Plan should be conducted by the Proponent and an appointed Environmental Officer or any applicable Competent Authority.

The next site inspection will be undertaken in January 2023, and a resultant biannual report will be produced thereafter.

APPENDIX A ENVIRONMENTAL SITE VISIT AUDIT AND INTERVIEW REPORT

July 2022

EXECUTIVE SUMMARY

Excel Dynamic Solutions Pty Ltd (EDS) has performed a Phase I Environmental Site Audit (“ESA”) of the Commercial National Oil Storage Facility located at 22°56'18.84"S; 14°30'55.82"E "E in Walvis Bay Industrial Area in the Region. EDS was authorized to perform this work on the 28th of July 2022 by the National Petroleum Corporation of Namibia (NAMCOR). The ESA was performed in conformance with the scope and limitations of Environmental Management Act No. 7 of 2007 and the EIA Regulations of 2012, the Petroleum Products and Energy Act of 1990 and its regulations, and the South African National Standards (SANS) 10089. This ESA has been performed by an independent and qualified environmental professional.

As shown in Figure 2 the audited Facility covers land totaling 3.2 Ha (32,000 m^2). The Facility comprises of a newly built tanker Jetty berths, building structures constituting a security room, reception area, kitchen, toilets, offices and a laboratory for conducting products quality tests.

The NOSF site has a capacity of 75 million litres of fuel in total. The storage tanks consist of:

- Diesel 1x5,000m^3 tank and 2x20,000m^3 tanks
- ULP consists of 2x10,000m3 tanks
- JET-A1 1x 5,000m3 tank
- HFO 1x5,000m3 tank

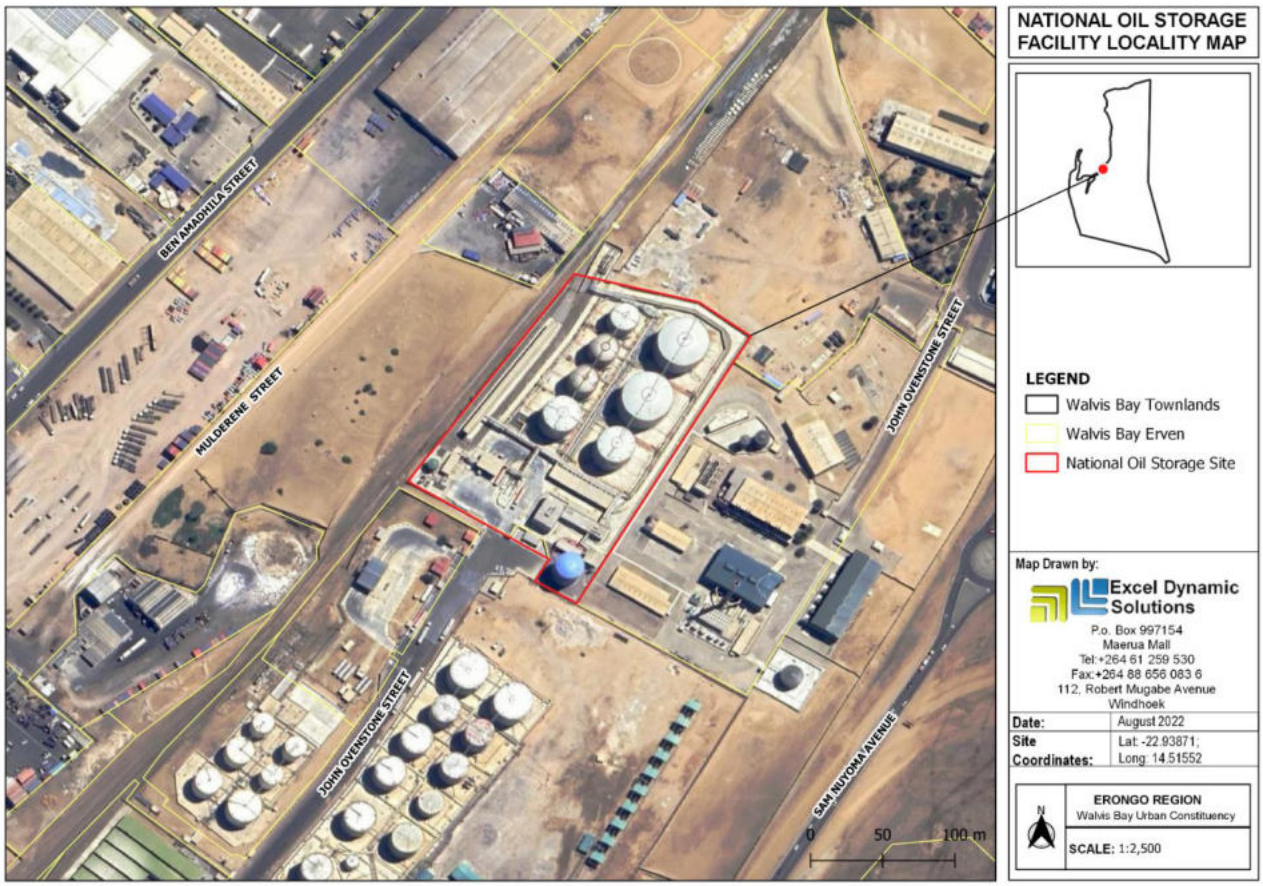


Figure 2 Location of the NOSF in Walvis Bay

Summary of the findings of this ESA of the Subject Depot

EDS has performed an Environmental Site Audit, in conformance with the Scope of Work developed in cooperation with the Proponent and the provisions of EMA 7 of 2007. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the Facility.

A de minimis condition is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental competent bodies. This assessment has revealed no evidence of de minimis conditions.

An historical recognized environmental condition (HREC) refers to an environmental condition which would have been considered a REC in the past, but which is no longer considered a REC based on

subsequent assessment and/or remediation of any contaminants to below the most restrictive (generally residential) cleanup target concentrations or regulatory closure with no formal or implied restricted uses. The assessment has revealed no evidence of HRECs in connection with the Facility

Recommendations and Conclusions

Based on the information provided in this report, EDS recommends that No Further Action is required at the NOSF and that the MEFT renews the Environmental Clearance Certificate (ECC).

1. INTRODUCTION

1.1 Purpose of the Assessment

Excel Dynamic Solutions Pty Ltd (EDS) has performed a Phase I Environmental Site Audit ("ESA") of the Commercial NOSF located at 22°56'18.84"S; 14°30'55.82"E in John Ovenstone Street in Walvis Bay Industrial Area in the Erongo Region. EDS was authorized to perform this work on July 28, 2022, by National Petroleum Corporation of Namibia (NAMCOR).

This ESA has been performed by an independent environmental professional as described in the Environmental Management Act, No.7 of 2007. Any exceptions to, or deletions from, this practice are described Section 1.0 of this report. The location of the Subject Depot and surrounding properties is shown on Figure 1.

The purpose of the ESA is to identify Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs) and Historical Recognized Environmental Conditions (HRECs) and de minimis conditions normally associated with petroleum products facilities, and as stipulated in the EMA of 2007.

The term REC is defined as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a facility: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

The term CREC is defined as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the

applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

The term HREC is defined as "a past release of any hazardous substances or petroleum products that has occurred in connection with the depot and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the depot to any required controls."

The term de minimis condition is defined as "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not RECs nor CRECs."

The term Business Environmental Risk (BER) is used to describe environmental risks considerations that do not rise to the level of a REC, but which EDS is of the opinion should be brought to the attention of Proponent and addressed during this assessment.

Typically, a Phase I ESA does not include sampling or testing of air, soil, groundwater, surface water, or building materials. These activities would be carried out in a Phase II ESA, if required.

1.2 Special Terms and Reliance

It is EDS's understanding that this report is to be used and distributed exclusively for purposes of renewing the ECC. This report of findings was prepared for the exclusive use of the NAMCOR, their contractors and competent government bodies such as the Ministry of Environment, Forestry and Tourism (MEFT) and the Ministry of Mines and Energy (MME). The contents of this report may not be copied, provided or otherwise communicated to any party other than those associated with NAMCOR and without the express written consent of NAMCOR.

1.3 Significant Assumptions

The following assumptions are made by EDS in this report. EDS relied on information derived from secondary sources including the project coordinator, governmental agencies, the Proponent (Coordinator), designated representatives of the Proponent and personal interviews. Except as set forth in this report, EDS has made no independent investigation as to the accuracy and completeness of the information derived from secondary sources including government agencies, the Proponent, designated representatives of the Proponent, depot personal interviews and has assumed that such information is accurate and complete. EDS assumes information provided by or obtained from the Proponent is accurate and complete. EDS assumes that the Proponent Coordinator, Proponent representatives including the Safety Officer used good faith in answering questions and in obtaining information for the subject depot. This would also include obtaining those helpful documents from previous consultants, etc. EDS also assumes the Proponent will designate appropriate and knowledgeable people for performance of the Phase II Environmental Assessment including the Site Safety Officer if required in the future.

2. SCOPE OF WORK:

The scope-of-work for this investigation was consistent with the Environmental Management Planning Practice and SANS and was designed to meet the objective above by performing the following tasks:

- Environmental Records (i.e., EMP and previous audit report) Review;
- Site Reconnaissance; and
- Interviews.

Each of these tasks is more specifically described in greater detail below.

Task 1: Records Review

EDS examined reasonably available records namely the environmental impact assessment and the draft environmental management plan prepared in 2013 by Geo Pollution Technologies and other environmental reports produced in the Walvis Bay area in an effort to evaluate current and historic activities that suggest the potential for recognized environmental conditions at the site. The specific items implemented under this task were as follows:

- Review databases of national and/or local agencies to identify past and current activities at the site, to the extent possible, with respect to the generation, treatment, storage, disposal and/or release of hazardous substances and/or petroleum products;
- Review and summarize of at least one of the following readily available sources: historic topographic maps, aerial photographs, and/or other historic data of the site to identify previous uses; and
- Review of available national and/or local publications regarding hydrogeology.
- Review of available national and/or local publications regarding health and safety.

Task 2: Site Reconnaissance

EDS conducted a site reconnaissance of the NOSF to identify recognized environmental conditions as indicated by:

- Stained or disturbed soils and/or pavement;
- Sheen or iridescence on surface water;
- Unusual odors;
- Unusual corrosion;
- Drums and containers;
- Storage tanks;
- Pits, ponds, pools, drains and sumps;
- Landfilling;
- Spills or releases;
- Storage, treatment and/or disposal of hazardous substances and/or petroleum products;

- Wastes generated at the subject site and associated waste disposal practices;
- Level of EMP knowledge and implementation status quo; and
- Health, safety, and environment (HSE) preparedness

EDS performed a visual reconnaissance of adjacent properties and observations for similar obvious concerns referenced above. Additionally, the general surrounding area land usage was observed to the extent identified while accessing the Facility.

Task 3: Interviews

EDS contacted the Proponent site representative(s) and readily available knowledgeable persons to obtain information indicating recognized environmental conditions in connection with past operations at the Facility.

3. SITE DESCRIPTION

3.1 Subject Depot

The NOSF located at 22°56'18.84"S; 14°30'55.82"E in John Ovenstone Stree in Walvis Bay Industrial Area.

3.2 Adjoining and Surrounding Properties (to the extent identified)

North – The Facility is bounded to the north by a commercial lot occupied by an Abattoir and Desert Stone facility

South – The Facility is bounded to the old fuel depots owned by Engen, Total and Puma

East – The Facility is bounded to the buildings owned by Nampower (i.e., Anixas I Power Station)

West –The Facility is bounded to the west by Mulderene Rd followed by a cemetery

4. PHYSICAL SETTING

4.1 General Topographic Setting

The Walvis Bay townland topography is a flat plain with a gradual 1% gradient in elevation from the coast up to the foot of escarpment. The town is in the Coastal Plain region of the Namib, which is an extensive, low-relief area that is bounded by the sea on one side and by some type of relatively high-relief sand dunes on the landward side.

4.2 Groundwater and Surface Water

The main surface water drainage systems in Walvis Bay area comprise the non-perennial Kuiseb river and the Tumas River (see Figure 4 overleaf).

Evaluation of aero-geophysical data by the DWAF/BGR project (Ploethner et al., 1995) revealed that besides the current surface water drainage channels, various palaeo-channels are present for the Kuiseb river. Most of these channels are covered by Namib Dune sands and are most likely to be inactive drainage structures. Nevertheless, there may well be potential for freshwater yielding channels.

None of the existing Kuiseb river surface water drainage channels are directed towards or connected to the Narraville area. Because of the distance to the Narraville area and the flow direction, no risk is expected to the proposed cemetery site to pollute the current Kuiseb river surface water drainage channels or the palaeo-channels.

The key features relating to the hydrogeology of the Delta and Walvis Bay area are summarised in this section of the report.

See below the relevant items of information concerning the hydrogeological conditions:

- The greatest aquifer thickness closest to the NOSF site is at Dorob North and Dorob South, with values ranging between 30 m and 70 m.
- The aquifer thickness in the area of the Rooibank B abstraction site on the eastern edge of the aquifer has an approximate thickness of 20 m.
- Dorob North and Dorob South are characterized by high aquifer transmissivities (ca. 100 to 400 m^2/day). They are separated by a distinct zone of silty sediments with low transmissivities (< 30 m^2/day).

- Groundwater head contours in the west and in Dorob North show a low gradient in the absence of any well abstraction.

- Groundwater flow within the Delta aquifer is influenced by compartments that are formed by bedrock highs and/or by low permeable sediments that limit the hydraulic interconnectivity.

- The calculated stored groundwater resource is approx. 750 -800 Mm^3 from which only about 15% (110-130 Mm^3) is situated above sea level.

- The sustainable yield estimates are 2.79 Mm^3/a for the Delta section and 2.5 Mm^3/a for the channel section. This amounts to a combined yield of 5.3 Mm^3/a.

The general groundwater flow directions clearly indicate that the risk of pollution from the NOSF is unlikely to have any effect on the current abstraction schemes from the Kuiseb aquifer and possible abstraction from an upper part of the Tumas riverbed.

There is no freshwater resources deterioration expected by any seepage from the NOSF site hence the present groundwater is solely of marine origin

4.3 Soils

The site is overlain by aeolian sand soils

4.4 Geology

The study of aerial and satellite images together with the observations made during the field visit at site and the surrounding revealed very specific geological and hydrogeological conditions. Generally, the geology of Walvis Bay is made up of:

- A thin layer of aeolic sediments. These are dune sediments which are blown in onto the harder or more muddy surfaces below. These aeolic sediments change in thickness and deposits maybe a few centimeters thick up to 7 metres in places.

- Below a sandy layer high in organics, gypsum and salt. This is a typical first stage sequence of a “Sabkha” environment. Sediments of sand and gypsum nodules are expected below the Sabkta.

4.5 Meteorological factors

Meteorological records of average temperatures in Walvis Bay are an annual high in the range of 18 to 22 °Celsius and an annual low of 10 to 16° Celsius. Rainfall does normally not occur. The only source of precipitation is fog which often moves inland. Recharge due to fog does not occur due to direct evapotranspiration from solar radiation. Recharge of the alluvial aquifers can only occur from the occasional surface run-off into the riverbeds. There is always a steady flow of groundwater to the ocean hence the riverbeds continue to drain into the ocean.

5. RECORD REVIEW

5.1 Environmental Records Review

Environmental records (environmental audit report) from the from the previous environmental professional were obtained for EDS by the Project Coordinator and the Security Officer on site (Proponent).

5.2 Historical Information Review

The following historical use information was reviewed:

5.2.1 Historical Topographic Map

EDS reviewed a historical topographic map of the Facility and surrounding properties for using a google earth platform. No special hazards, such as sinkholes, gravel pits, landfills, pipelines, open pits, stockpiled soils or railroad tracks and spurs, were indicated on the Facility or an adjoining depot.

5.2.2 Previous Environmental Reports

No records of previous environmental audits of the facility activities are available.

EDS prepared a site assessment checklist for work carried on 28 July 2022 guided by the EMP and the SANS Standards.

6. DATA GAPS

After reviewing the above sources of information regarding the historical information on the Facility, EDS determined that there were no data gaps that would affect the ability of the environmental professional involved on this project to identify RECs in connection with the Facility except the absence of the Environmental Management Plan.

7. INTERVIEWS AND SPECIALIZED KNOWLEDGE

7.1 Depot Representative Interview

An interview was conducted with Mr. Ellipius Mutero, a representative of the Proponent at the NOSF site. The site audit visit was conducted on July 28, 2022. According to Mr. Mutero who has been associated with the facility for over 2 years, the fuel storage facility has been in operation since 2015. He was not aware of any environmental issues with the facility and was not aware of any environmental violations or liens on the facility and indicated that he had no knowledge of any storage, handling or dumping of hazardous materials on the facility.

7.*2 Specialized Knowledge and Reason for Completing Phase I Audit*

Pursuant to EMA 2007, EDS asked a representative of the user of the report, the owner of the NOSF, if he had any specialized knowledge of environmental conditions associated with the subject facility. EDS requested that he provide a completed environmental checklist that is included in **Appendix B**.

8. SITE RECONNAISSANCE

EDS conducted a site visit of the NOSF and observed the condition of the facility on July 28, 2022. A depiction of the audited site and surrounding area configuration is provided in the Figures 1. Weather conditions at the time of the site reconnaissance were partly cloudy. The visual reconnaissance consisted of observing the fuel storage containers and systematically traversing the site to provide an overlapping field of view, wherever possible. The periphery of the on-site structures was observed along with interior accessible common areas, storage and maintenance areas.

During the site reconnaissance, EDS looked for the following items, which could indicate the potential presence of RECs on the facility area.

- ***Hazardous Substances and Petroleum Products in Connection with Identified Uses***

No significant use or generation of hazardous substances is known to occur at the facility. No manufacturing, fabrication or assembly operations are conducted on the facility.

- ***Odors***

No strong, pungent or noxious odors were noted or reported that would indicate the potential for RECs at the facility were noted emanating from either the NOSF or adjacent depots.

- ***Pools of Liquids***

No pools containing liquids likely to be hazardous substances or petroleum products were observed or reported on or adjacent to the facility.

- ***Drums & Hazardous Substance, Petroleum Products and Unidentified Substance Containers***

No drums containing liquids likely to be hazardous substances or petroleum products were observed or reported on or adjacent to the facility.

- ***Heating and Cooling Source***

The office area is heated by electricity supplied by ERONGORED and cooled by a window-installed air conditioners located at the rear of the building.

- ***Interior Stains or Corrosion***

No evidence of stains or corrosion on the floors, walls or ceilings at the facility were noted or reported.

- ***Drains and Sumps***

No evidence of sumps was observed.

- ***Pits or Ponds***

The site has a separator pit. No ponds associated with hazardous substance, petroleum products or industrial activities at the facility.

- ***Stained Soil & Pavement***

No significant stained soil or pavement was observed or reported at the facility.

- ***Stressed Vegetation***

No areas of stressed vegetation were observed or reported on or adjacent to the facility.

- ***Solid Waste***

EDS did not observe any areas that appeared to have been filled or graded that would suggest the presence of waste including, but not limited to, construction debris, demolition debris or other solid waste. No improperly stored solid waste was noted.

- ***Wastewater***

No operations, likely to require a significant wastewater discharge, were noted or reported. Waters that enter the sanitary system go to the town's waste collection facilities.

- ***Wells***

No drinking water wells, dry wells, irrigation wells, injection wells, abandoned wells or other wells were observed or reported.

- ***Septic Systems***

EDS did not observe any on-site septic systems

- ***Copy of EMP***

There is not copy of EMP or EMP training manual on sit

9. RECOMMENDATIONS AND CONCLUSIONS

EDS has performed an Environmental Site Audit, in conformance with the Scope of Work developed in cooperation with the Proponent and the provisions of EMA 2007. This assessment has revealed no evidence of RECs in connection with the facility.

A de minimis condition is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. This assessment has revealed no evidence of de minimis conditions.

An historical recognized environmental condition (HREC) refers to an environmental condition which would have been considered a REC in the past, but which is no longer considered a REC based on subsequent assessment and/or remediation of any contaminants to below the most restrictive (generally residential) cleanup target concentrations or regulatory closure with no formal or implied restricted uses. The assessment has revealed no evidence of HRECs in connection with the facility.

No significant data gaps were identified that would affect the ability of the environmental professional to identify RECs at the facility.

It is possible for there to be business environmental risks (BERs) related to facility operations that do not meet the definition of a REC. This assessment has revealed no evidence of BERs associated with the daily operations

Based on the information provided in this report, EDS recommends that No Further Action is required at the facility, and that the MEFT considers renewal of the ECC.

10. LIMITATIONS

No environmental assessment or investigation is infallible. Some uncertainty will always exist concerning the presence or absence of potential RECs at a particular facility, irrespective of the

rigor of the investigation. Accordingly, EDS does not warrant that RECs, other than those identified in this report, do not exist at the subject depot or may not exist there in the future.

The findings and opinions presented in this report are partially based on information obtained from a variety of sources which EDS has no control over but believes are reliable. Nonetheless, EDS does not warrant the authenticity or reliability of the information from these sources.

EDS believes that it has performed the services summarized in this report in a manner consistent with the level of care and skill ordinarily exercised by members of the environmental risk assessment profession practicing at the same time and under similar conditions in the area of the project.

Conclusions regarding the condition of the site do not represent a warranty. If additional information becomes available concerning this site after the date of this report, EDS is under no obligation to revise the conclusions and recommendations of this report.

APPENDIX B SITE AUDIT AND INSPECTION CHECKLIST

INSPECTION FOCUS AREA	COMMENT
FORECOURT	
Tank tops empty of water	
Tanks with caps, locks and grade labels	
Offset fills with caps, locks and grade labels	
Vapour recovery with caps, locks and warning signs	
Oil/water separators clean and free from debris	
DISPENSERS	
Panels free of leaks and seals in good condition	
Waste disposal area is clean and regularly cleared	
Fire extinguishers and sand buckets present at each dispenser island	
All public warning and information labels are posted	
Car wash area (if any) is clean and free of hazards	

INSPECTION FOCUS AREA	COMMENT
Tank vents free of debris	
No audible noise from vent valves during delivery	
GENERAL AREAS	
Emergency doors free from obstruction and open outwards	
Emergency stop button working	
PA in working condition	
Electrical cupboard free of combustibles and locked	
Fire action notice displayed and complete	
Assembly point sign displayed	
OFFICE AREA	
Petroleum licence available with plans (expiry date)	
DCD licence available	
Vapour recovery authorisation (expiry date)	
Electrical test available and current	

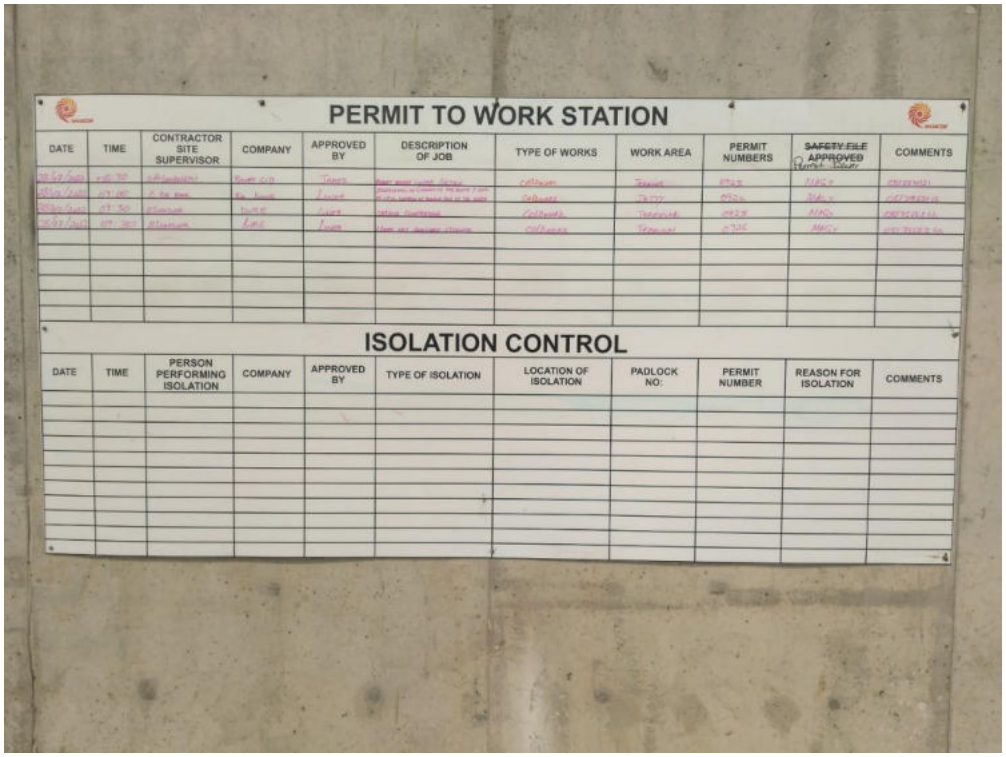
INSPECTION FOCUS AREA	COMMENT
Petroleum filling station register up-to-date and complete	
EMP/Risk assessments complete and up to date	
EHS Policy Statement is prominently displayed	
Emergency telephone numbers are up-to-date and displayed	
Accident book available and used (review trends)	
First aid box complete and clean	
Good housekeeping standards are maintained	
All weekly checklist actions are completed as planned	
Vapour recovery maintenance log available	
Vapour recovery instructions available	
Dispenser Islands	
Visually check dispenser housings internally for fuel	
Check hoses for kinks and damage	
Check nozzle cut-off device is working	
Individual dispenser isolation switches are working	

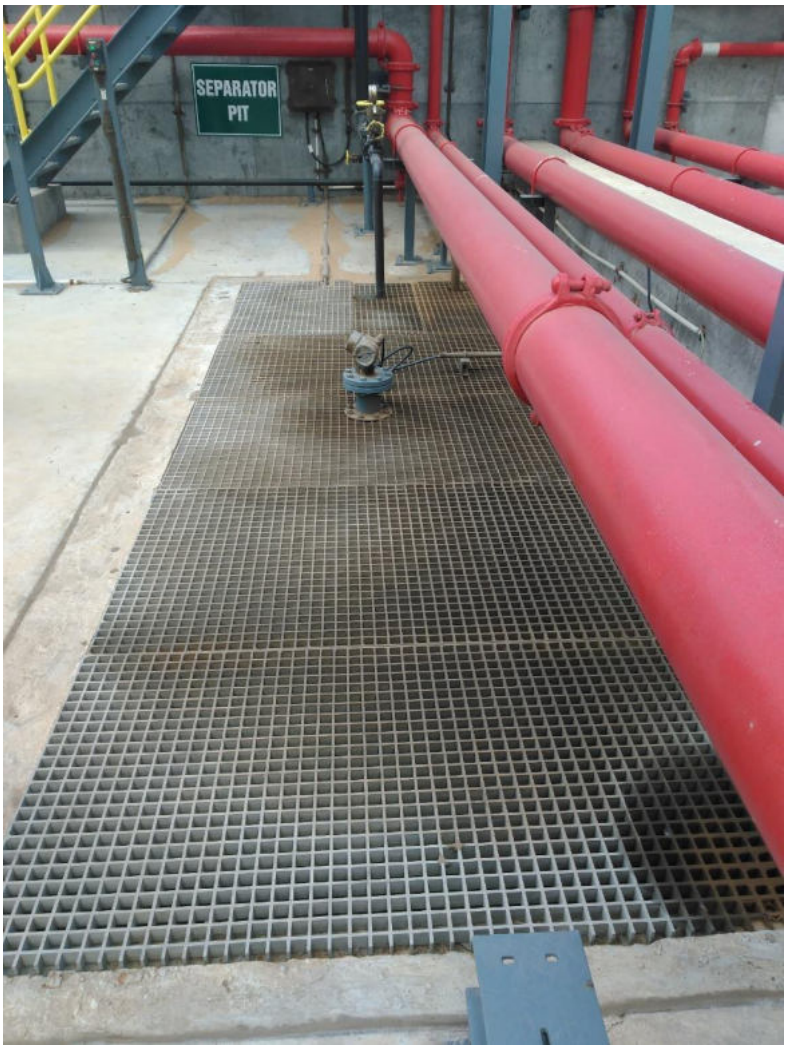
INSPECTION FOCUS AREA	COMMENT
Pipework & Vent Pipes	
Remove any shrubs around vent pipes etc. within a 3-metre radius	
Check all pipes are adequately labelled	
Check the condition of pipes and valves for signs of leaks, corrosion or damage	
Storage Tanks & Fill Points	
Check tanks for water build up	
Check tank top manholes free from water, product and are adequately labelled	
Check tank fill pipes are locked	
Check below ground offset fill point chambers are free from product, debris and labelled adequately	
Check manhole covers are seated correctly and can easily be lifted using appropriate lifting device	
Lighting Levels	

INSPECTION FOCUS AREA	COMMENT
Check lighting levels are adequate in all areas, tankfarm, forecourt, office and shop	
Fire Fighting Equipment & Emergency Equipment	
Check that all fire extinguishers are present, fully charged and the correct number are present with no signs of damage	
Check sand buckets are full of dry sand and test fire alarms are working	
Check emergency switches (panic button) and loudspeaker system are functioning properly	
Check contents of first aid box are all present and correct	
Warning / Advice Notices	
Check all notices are posted as required, are undamaged, clean and legible	
Oil/Water Separator	
Check all chambers for the presence of petrol / oil and buildup of grit and debris.	
Check drains are not blocked or full	

INSPECTION FOCUS AREA	COMMENT
COMPLETED BY: (Signature)	

APPENDIX C SITE PHOTOS (CAPTURED BY THE PROPONENT REPRESENTATIVE)




SEPARATOR
PIT


Safety Board
Number of Days Without LTI
594
Best Record
594
Date of Last LTI
0
"Safety begins with YOU"