

ENVIRONMENTAL MANAGEMENT PLAN (EMP)

ACTIVITIES ASSOCIATED WITH THE PROPOSED INSTALLATION
OF AN ABOVE-GROUND OIL STORAGE TANK, IN THE
INDUSTRIAL AREA OF OKAHANDJA, OTJOZONDJUPA REGION,
NAMIBIA.

AUGUST 2021

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EXPERTISE AND DECLARATION OF INDEPENDENCE

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Right-Path Investments (Pty) Ltd to compile this environmental management plan.

Immanuel N. Katali, the EIA Lead Practitioner holds a B.Arts (Honors) in Geography, Environmental Studies and Sociology and has over 5 years of experience in conducting EIAs in Namibia.

The consultant herewith declare that this report represents an independent, objective assessment of the environmental impacts and its mitigation measures associated with the activities and potential impacts of the proposed oil storage tank.

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LIST OF ACRONYMS, ABBREVIATIONS AND UNITS

DEA	Department of Environmental Affairs
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
I.N.K	I.N.K Enviro Consultants cc
M ²	Meter Squares
MET	Ministry of Environment and Tourism



1 INTRODUCTION

1.1 Introduction to the Proposed Project

Right-Path Investments (Pty) Ltd intends on obtaining an Environmental Clearance Certificate (ECC) for their proposed installation of an above-ground oil tank, on a currently disturbed piece of land measuring 150 square meters, located within their premises (refer to figure 1).

Right-Path is currently dealing with a lot of delivery tasks for their brick-making operations. Their monthly consumption is high enough to consider having their own oil tank to save on the budget. However, in order for Right-Path to store oil on their premises, a permit is required from the Ministry of Mines and Energy. An ECC is one of the requirements in order to obtain this permit. Puma oil company will assist with the installation of the oil tank. However, it will be very simple and only a base of 1-meter high will be constructed to hold the oil tank

Prior to commencement of the construction activities, an Environmental Clearance Certificate (ECC) is required on the basis of an approved Environmental Management Plan (EMP). It is with this background that, I.N.K Enviro Consultants cc (I.N.K) an independent firm of consultants, was appointed to compile an EMP for this project.

1.2 Project Description

1.2.1 Installation of Oil Tank

Puma service company will assist with the installation of the oil tank. But it will be a very simple one and only a base of 1 meter high will be constructed to hold the oil tank.

1.2.2 Number of employees during construction

About 6 employees will be required for the installation of the oil tank.

1.2.3 Delivery of oil to the tank

The puma oil company will be in charge of all the delivery job. Oil will be delivered to site by oil trucks and it will be pumped into the oil tank.

1.2.4 Oil Tank Capacity

The oil tank will have a capacity of 23 000 litres, they request minimum of 18000 for 1 refill. The monthly consumption will be up to 10 000 litres.

1.2.5 Timeframe

It will take approximately two weeks for the installation.

1.3 Details of the persons who compiled this EMP

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Right-Path Investments (Pty) Ltd to the EMP.

Immanuel N. Katali, the EIA project manager and lead practitioner holds a B.Arts (Honours) Degree in Geography, Environmental Studies and Sociology and has over five years of relevant experience in conducting/managing EIAs, compiling EMPs and Socio-Economic Studies. Immanuel is certified as an environmental practitioner under the Environmental Assessment Professionals Association of Namibia (EAPAN).

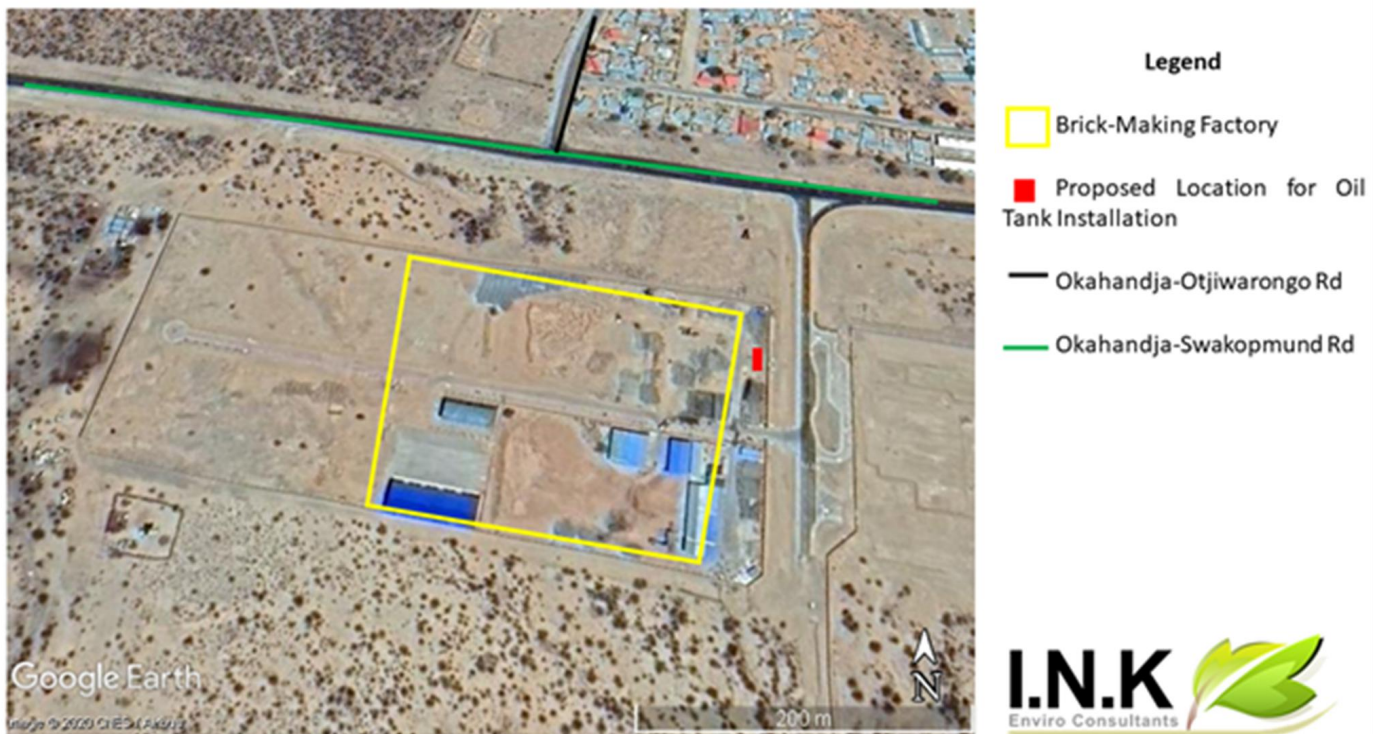


Figure 1: Location of the Proposed Oil Storage Tank

2 LEGAL FRAMEWORK

The Republic of Namibia has five tiers of law and several policies relevant to environmental assessment and protection, which includes:

- The Constitution
- Statutory law
- Common law
- Customary law
- International law

Key policies currently in force include:

- The EIA Policy (1995).
- Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1994).

As the main source of legislation, the Constitution of the Republic of Namibia (1990) makes provision for the creation and enforcement of applicable legislation. In this context and in accordance with its constitution, Namibia has passed numerous laws intended to protect the natural environment and mitigate against adverse environmental impacts.

2.1 Applicable Laws and Policies

In the context of the proposed amendment project, there are several laws and policies currently applicable.

- Namibia's Environmental Impact Assessment (EIA) Policy of 1995
- Environmental Management Act, No 7 of 2007
- Namibian Water Corporation Act, No. 12 of 1997
- Water Resources Management Act, 2013 (Act No. 11 of 2013)
- Atmospheric Pollution Prevention Ordinance, No. 11 of 1976
- Hazardous Substance Ordinance, No. 14 of 1974

3 ENVIRONMENTAL ACTION PLANS

The management measures proposed to mitigate the potential impacts relating to the operation phase are detailed in the action plans below.

3.1 Action plans to achieve objectives and goals

Action plans to achieve relevant objectives/goals are listed in tabular format together with timeframes for each action. The action plans include the timeframes and frequency for implementing the mitigation measures as well as identifying the responsible party.

Table 1: Action Plan – Fire Prevention (Health and Safety)

Objective:

The objective of the mitigation measures is to prevent fires and explosions on site.

Activities / facilities	Management and mitigation measures	Action plan	
		Frequency / target date	Responsible parties
Vehicle Refueling	<ul style="list-style-type: none"> • Turn off car and truck engine before refueling. • Don't smoke, light a match, or use a lighter near the oil storage tank. • Remain undistracted while pumping gas. This is the process of transferring a hazardous substance from one place to another, and it demands your full attention. • Refrain from using a cell phone, computer, or portable radio while refueling. If you must use electronic devices, follow the manufacturer's instructions for use near pumping stations. • Don't "top off" the tank as this could lead to spills or overfilling your vehicle. • Once refueling is complete, leave the nozzle in the tank for a few seconds to avoid drips. 	Throughout operations	Supervisor

Table 2: Action Plan – Hydrocarbon and associated spills Management

Objective:

The objective of the mitigation measures is to handle and store hydrocarbons in such a way as to prevent spills. Where spills do occur, to ensure the spill is contained and the contamination cleaned-up and contaminated material disposed of responsibly.

Activities / facilities	Management and mitigation measures	Action plan	
		Frequency / target date	Responsible parties
Machinery, generators and equipment	<ul style="list-style-type: none"> • Establish and maintain impermeable bunded / drip trays around machinery, generators and equipment. • Machinery and equipment shall be kept in good working condition to ensure they do not leak oil/diesel. • In the event where machinery needs to be repaired/serviced on site, all care shall be taken to prevent spillage of oil/diesel by performing the work on impermeable surfaces or proper placement of drip trays. • All used parts machinery (which may include, but not limited to, oil filter, pipes, rags, cans) will be collected and removed from site and disposed of in an appropriate manner. • Regular inspection of oil storage tanks for leakages and wear is required. • Regular environmental awareness should include potential risks associated with hydrocarbons. 	Throughout construction and operations	Supervisor
Storage of the oil	<ul style="list-style-type: none"> • The oil shall only be stored in the oil tanks being undamaged and sealed. • Damaged oil tank shall be sealed/repared immediately with appropriate material. • Damaged oil tank must be correctly handled & repaired to avoid contamination of the soil and other third 	Throughout the operations	Supervisor

	<p>parties' facilities.</p> <ul style="list-style-type: none"> • The tank must be inspected on a daily basis to ensure they are not damaged. 		
General (spills)	<ul style="list-style-type: none"> • Any spills will be contained and cleaned up immediately. • Spill kits will be readily available on site. Employees and/or contractors will be shown how to use the spill kits to enable containment and remediation of pollution incidents. • The contractor will establish environmental awareness to employees. 	Throughout construction and operations	Supervisor

Table 3: Action Plan – Waste management

Objective:

The objective of the management measures is to ensure proper storage, removal, transportation and disposal/recycling of hazardous and non-hazardous (i.e. domestic) waste.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
General	<ul style="list-style-type: none"> • Waste shall be separated and recycled / re-used where possible. 	Throughout construction and operation	Supervisor
	<ul style="list-style-type: none"> • No burning of waste material will be allowed on site. 	Throughout construction and operations	Supervisor
	<ul style="list-style-type: none"> • Contractors will be shown the importance of correct waste disposal as well as waste minimisation and recycling. 	Throughout construction and operations	Supervisor
Collection and storage	<ul style="list-style-type: none"> • Suitable receptacles with lids for waste disposal will be required on site. 	Throughout construction	Supervisor

of waste	<ul style="list-style-type: none"> • Ensure animals do not have access to waste bins. All food scraps need to be removed from the site on a daily basis. • If rubbish containers are used, ensure these can be sealed from strong wind and sealed during transport. 	and operations	
Disposal of non-hazardous (domestic) waste	<ul style="list-style-type: none"> • Waste shall be transported to the Okahandja Landfill site on a weekly basis. No disposal of waste on site and no burning of waste. 	Throughout construction and operations	Supervisor
Disposal Hazardous Waste	<ul style="list-style-type: none"> • Hazardous Waste and hydrocarbon contaminated material/soil will be disposed off at the Kupferberg Hazardous Waste Disposal Facility. 	Throughout construction and operations	Supervisor
Medical waste from First Aid Kit	<ul style="list-style-type: none"> • Medical waste where appropriate shall be disposed of at the medical waste facility. 	Throughout construction and operations	Supervisor
Disposal records (domestic and industrial)	<ul style="list-style-type: none"> • Written evidence of safe disposal of waste will be kept. 	Throughout construction and operations	Supervisor

Table 4: Action Plan - Visual Impacts

Objective:

The objective of the mitigation measures is to avoid (as far as possible) visual impacts to travellers and nearby communities.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Installation of an oil storage tank	Ensure that the operations and facilities are well maintained and kept in good order.	Throughout the operations	Supervisor

Table 5: Action Plan –Noise Pollution

Objective:

The objective of the mitigation measures is to prevent negative noise pollution impacts emitted from the project.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Noise Generated	<ul style="list-style-type: none"> The construction is limited to day-time only and no construction should be allowed during the night. 	<ul style="list-style-type: none"> Throughout construction 	Supervisor

Table 6: Action Plan – Social Issues & Training

Objective:

The objective of the mitigation measures is to prevent negative social impacts associated with the workforce.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Employees - social issues	<ul style="list-style-type: none"> Have zero tolerance to alcohol in the workplace. A First Aid Kit should be available at all times. 	<ul style="list-style-type: none"> Prior to operation activities Throughout the operations 	Supervisor
Training & Awareness	All individuals who work on site are aware of the contents of the EMP.	<ul style="list-style-type: none"> Prior to operation activities Throughout the operations 	Supervisor

Socio-Economic	Emissions from the operations could result in the contamination of the neighboring sites and their products, thereby impacting them economically. The management and mitigation measures in the preceding sections of this report will be implemented in order to manage this risk.	<ul style="list-style-type: none"> Throughout the operations 	Supervisor
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Table 7: Action Plan – Economic, Job Creation and Skills Development

Objective:

The objective of the mitigation measures is to enhance positive economic impacts.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Recruitment	<ul style="list-style-type: none"> Have approachable person as she/he will be a key link between the community in the area and the project. Demonstrate its efforts to recruit employees from Okahandja and Otjozondjupa Region. Be gender sensitive and select women for interview, training and recruitment. 	<ul style="list-style-type: none"> Prior to operation activities Throughout the operations 	Supervisor

Table 8: Action Plan – Groundwater and surface water contamination

Objective:

The objective of the mitigation measures is to prevent negative impacts associated with groundwater and surface water pollution.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties

<p>Ablution Facilities</p>	<ul style="list-style-type: none"> • Contractor must provide appropriate ablution facilities for the employees during construction. • Contractor should ensure that toilets are working properly and are clean, so they do not pollute the surrounding environment or create hygiene problems. • All sewerage from the toilets should be in good working order. • Personnel may not relieve themselves in the surrounding bush 	<p>Throughout construction</p>	<p>Supervisor</p>
<p>Contamination of groundwater / surface water</p>	<ul style="list-style-type: none"> • Refer to “Hydrocarbon and associated spills Management Action plan”. 	<p>Throughout construction and operations</p>	<p>Supervisor</p>

4 PARTIES RESPONSIBLE FOR THE IMPLEMENTATION OF THE EMP

This section describes the roles and responsibilities for implementing the different parts of the environmental management plan (EMP).

4.1 Supervisor

The Supervisor has overall responsibility for environmental management and safety during the construction and operation process of the oil storage tank and shall oversee the implementation of the EMP.

The Supervisor's responsibilities relating to compliance with this EMP:

- Regular inspections of compliance to this EMP and any other relevant legal requirements.
- Regular correspondence with the DEA on environmental issues and incidents.
- Conduct environmental awareness training during induction training and on an ad hoc basis thereafter to all workers.
- Ensure compliance to all site rules
- Ensure that staff is controlled through the implementation of appropriate security measures.
- Carefully manage the handling of hydrocarbons and other hazardous materials.
- Monitor for excessive noise levels and implement control measures if necessary.
- Report incidences to the DEA.
- Implement a waste management strategy.
- Monitoring and maintenance of equipment and machinery.
- Implement an environmental awareness plan.
- Implementation of first-aid procedures.

5 TRAINING AND AWARENESS

The purpose of the job specific environmental awareness training is to ensure that employees/all staff are equipped to implement the actions committed to in the EMP. The staff involved in construction and operations will receive training regarding the requirements of this EMP.

Four main forms of training will be provided on the premises:

- Site induction
- Environmental management training – general and targeted

The training will generally be prepared by the Supervisor (or the Environmental Representative).

The following will be done to ensure all employees, contractors, suppliers and visitors receive the appropriate training/awareness:

5.1 Environmental Site Induction

All new members of staff receive a corporate Environmental Induction along with the obligatory Health & Safety induction. The induction gives a general overview of the environmental challenges faced by the project, how we are managing them, and general tips for reducing our impact in the workplace.

The main reason for environmental induction is to encourage new staff to be environmentally aware right from the beginning of their employment. This will ensure that environmental initiatives are successful by eliminating bad habits from the start.

Before working on site, all personnel and sub-contractors will undertake a site induction incorporating environmental requirements. The induction will address a range of environmental awareness issues specific to the construction process of the project.

As a minimum, training shall include:

- Explanation on the importance of complying with the EMP and environmental implications should the EMP not be effectively implemented.
- Explanation of the site rules.
- Discussion of the potential environmental impacts of activities, recognition of environmental risks and how to control these risks.
- The benefits of improved personal performance, understanding of what to do in case of an environmental event or exposure.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when carrying out construction and operational activities.
- Explanation of the requirements of the EMP and its specification.
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.

5.2 Environmental Awareness training

Targeted environmental management training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. This environmental training will aim to achieve a level of awareness and competence appropriate to their assigned activities. This training will take place at the beginning of construction and operations.

