

## Updated Environmental Management Plan for the Operation of a Truck Port for NAMCOR in Otjiwarongo, Otjozondjupa Region.



Author(s): **Mr. Nerson Tjelos**  
Company: **Excel Dynamic Solutions (Pty)  
Ltd**  
Telephone: **+264 (0) 61 259 530**  
Fax2email: **+264 (0) 886 560 836**  
Email: **info@edsnamibia.com**

Client: **National Petroleum Corporation of  
Namibia (Pty) Ltd**

Contact person: **Ms. Imelda Tjijenda**  
Telephone: **+264 61 204 5221**  
Email: **itjijenda@namcor.com.na**

## TABLE OF CONTENTS

<b>LIST OF FIGURES</b> .....	ii
<b>1 INTRODUCTION</b> .....	<b>3</b>
1.1 Project Background .....	3
1.2 Purpose of the Environmental Compliance (Audit) Report.....	5
1.3 Appointed Environmental Assessment Practitioner .....	6
<b>2 EMP ROLES AND RESPONSIBILITIES</b> .....	<b>6</b>
2.1 Environmental Management Plan Actions and Audit.....	6
<b>3 ENVIRONMENTAL AUDIT</b> .....	<b>7</b>
3.1 Project Activity Summary and Compliance Audit.....	7
3.2. Management Action Plan: Operation (and Maintenance) Phase .....	8
3.3 Management Action Plan: Decommissioning Phase .....	19
<b>4 CONCLUSION AND RECOMMENDATIONS</b> .....	<b>26</b>

## LIST OF FIGURES

Figure 1: Location of the bulk fuel storage facility in Otjiwarongo .....	4
Figure 2 Location of the bulk fuel storage facility in Otjiwarongo . <b>Error! Bookmark not defined.</b>	

# 1 INTRODUCTION

## 1.1 Project Background

This Environmental Management Plan (EMP) 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 truckports around the country, supplying diesel, petrol, paraffin, lubricants and engine oils.

NAMCOR was issued an Environmental Clearance Certificate (ECC) on 09 November 2018 to permit for the Development of a Truckport on Portion A/19 and Portion 19/5 of Farm Otjitasu in Otjiwarongo in the Otjozondjupa Region. The locality map of the facility is shown in **Figure 1**.

The updated EMP 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 Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007), and a condition of the ECC issued for operation of the facility.

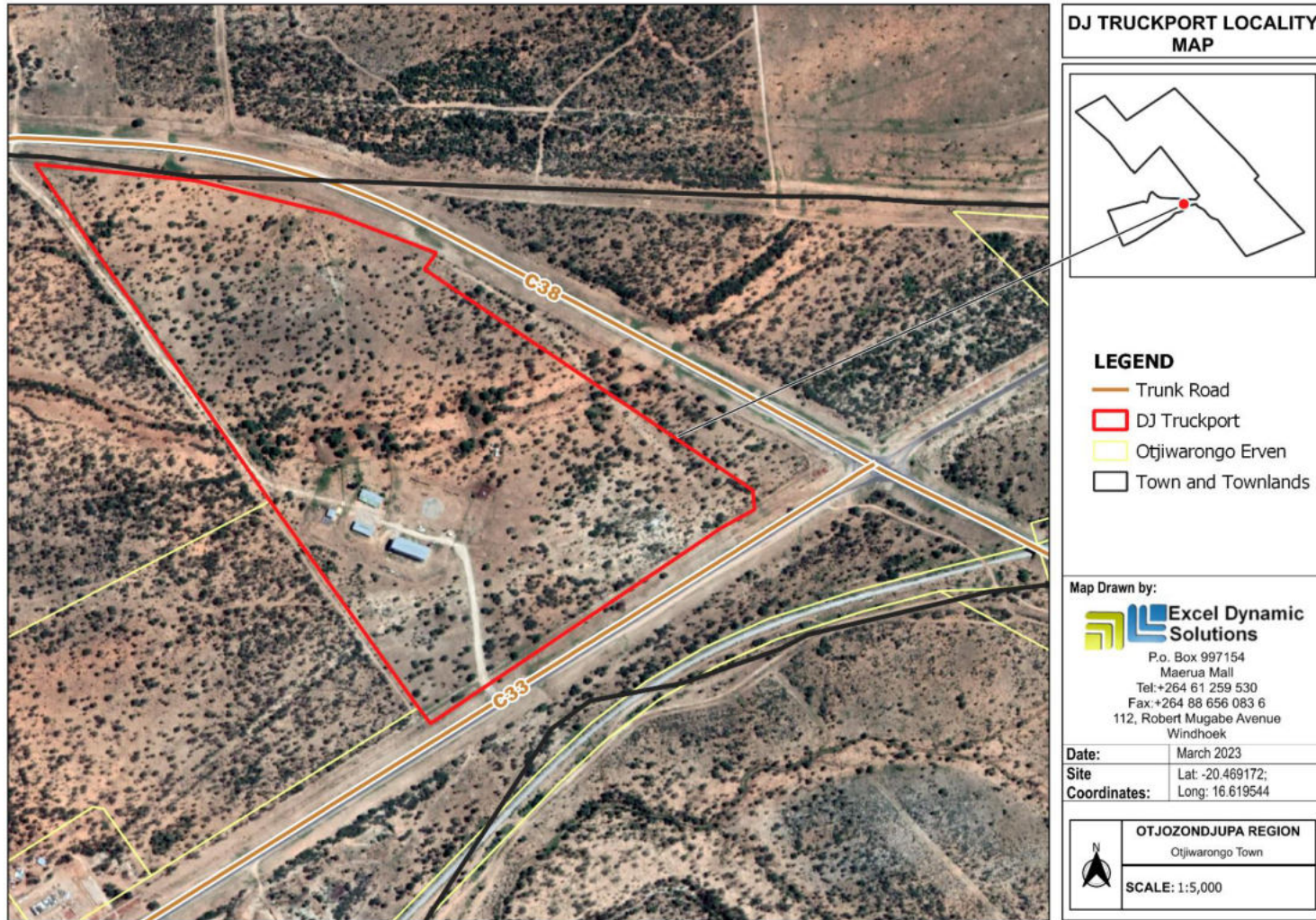


Figure 1: Location of the Truckport facility in Otjiwarongo

## 1.2 Purpose of the updated Environmental Management Plan Report

An Environmental Management Plan 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 Environmental Management Plan and/or Audit Report is one of the requirements (scope of work) presented to Excel Dynamic Solutions (EDS) by NAMCOR, to ensure environmental compliance with reference to the Environmental Management Plan (EMP), which was prepared as a legal requirement by Section 8 of the Environmental Management Act (EMA), No.7 of 2007 and its 2012 Environmental Impact Assessment (EIA) Regulations.

The Reports serve 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 where the Proponent operates the truck port and activities related to trucking on site. It is also the phase during which maintenance of the area, equipment and machinery is expected to be done by the Proponent.
- **Environmental Monitoring Requirements** - In order 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 truck port 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 (EDS) has been appointed as the external Environmental Control Officer (ECO) to ensure EMP compliance of operations at the Truck port Facility, 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 November 2018 – January 2023.

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 prospecting and exploration activities were based on the three project phases listed below:

- Phase 1: Planning
- Phase 2: Construction
- Phase 3: Operational (**Table 1**)
- 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 Truckport has been in existence since March 2018. The last environmental audit was conducted on the Property in September 2018. Therefore, this audit assessment and updating of EMP covers the period November 2018 – January 2023.

EDS has performed an Environmental Audit on site, in conformance with the Scope of Work developed in cooperation with the client 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
<b>EMP availability</b>	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 OHS&E issues in the EMP. No copy of EMP is available on site.	<b>NON-COMPLIANT</b>	Environmental Coordinator/Proponent to ensure a copy of the updated EMP is made available at the Property
<b>EMP training</b>	Employees appointed for operation and maintenance on respective site must ensure that all personnel are 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. No EMP. No copy of EMP is available on site.	<b>NON-COMPLIANT</b>	Environmental Coordinator/Proponent to ensure Property employees and contractors are afforded training opportunities on the updated EMP.
<b>Employment and skills transfer</b>	Provision of employment to residents of Otjiwarongo	Employment of residents is prioritised	<b>COMPLIANT</b>	N/A



Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
<b>Visual Impacts (sense of place)</b>	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.	<b>COMPLIANT</b>	N/A
<b>Ecological Impact</b>	All the necessary options to preserve the natural ecological setting of the site and surroundings	Due to the nature of the operation, there environment is not in the natural state. No fauna or flora on site, but the area surrounding the site is left in its natural state	<b>COMPLIANT</b>	N/A
<b>Air Quality</b>	All venting systems and procedures have to be designed according to SANS standards	Vapour emissions are minimal and site specific and pose a limited threat to personnel on site.	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
<p>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.</p>				
<p><b>Waste Generation</b></p>	<p>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 wherepossible transferred to waste oil recycling facilities.</p>	<p>Hazardous waste is collected and removed from the site regularly.</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
	<p>All other domestic waste should be disposed of timeously to maintain visual orderliness, but more importantly, to avoid liquid waste entering the soil substrate</p>		<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	Contaminated soil can be remediated in accordance with accepted procedures at a site dedicated for this purpose.		<b>COMPLIANT</b>	N/A
	Liaise with the Municipality regarding waste and handling of hazardous waste.		<b>COMPLIANT</b>	N/A
	A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.		<b>COMPLIANT</b>	N/A
	Any complaints received regarding waste should be recorded with notes on action taken		<b>COMPLIANT</b>	N/A
<b>Health and Safety</b>	<p>Implementation of a health and safety management system reduces health and safety related risks.</p> <p>Typical mitigating measures within the health and safety management systems are:-</p> <ul style="list-style-type: none"> <li>• Job hazard analysis</li> <li>• Operational and procedural manuals</li> <li>• NEBOSH (or equivalent) certified Health and Safety training of staff</li> <li>• Regular inspections and maintenance of all safety equipment and structures</li> </ul>	<p>Implemented.</p> <p>A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures .</p> <p>Health and Safety Training is conducted</p>	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>• Implement housekeeping rules</li> <li>• Colour coding areas, pipes, equipment and substances</li> <li>• Signage for Personal Protective Equipment (PPE) (e.g. protective clothing like safety boots and hard hats)</li> <li>• Safe work procedures and permits to work</li> <li>• Clearance certificates for confined spaces</li> <li>• Emergency response plans</li> <li>• Regular reviews of Material Safety Data Sheets(MSDS) in training</li> <li>• First aid training of supervisors and volunteering staff and treatment</li> <li>• Medical procedures and emergency services must be available on site or close by</li> <li>• Daily safety moments and/or drills</li> <li>• Protective equipment e.g. handrails on top of rail or road tankers</li> <li>• Implement regulations for handling fuel</li> </ul>			

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
Noise	<p>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.</p> <p>All noise complaints and additional data must be included in the health and safety report.</p>	<p>A bi-annual report of all incidents reported is compiled, including inspection and maintenance dates of equipment and structures</p>	<b>COMPLIANT</b>	N/A
<b>Groundwater Contamination</b>	<p>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.</p>		<b>COMPLIANT</b>	N/A
	<p>All fuelling should be carried out on surfaces provided for this purpose. e.g. Concrete slabs with regularly maintained seals between slabs.</p>		<b>COMPLIANT</b>	N/A
	<p>The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, including the correct use of</p>		<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	sumps and regular reporting of spillages, must be audited and corrections made where necessary.			
	Proper training of operators must be conducted on a regular basis.		<b>COMPLIANT</b>	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.		<b>COMPLIANT</b>	N/A
	Contingencies for the changes in pressure and temperature between Otjiwarongo and the destination must be in place when filling rail tankers in Otjiwarongo.  Avoid overfilling of tanks in Otjiwarongo  Position tankers over bunded areas to prevent soil contamination, especially during rainy season to prevent runoff to nearby drainage systems or infiltration towards the water table.		<b>COMPLIANT</b>	N/A
<b>Fire and Explosion Hazard</b>	<b><i>Safe Offloading/Loading Procedures must be followed:</i></b>  <ul style="list-style-type: none"> <li>• No locomotives may enter the rail gantry – fire risk.</li> </ul>		<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>• Coupling of hoses should be tight and old perished materials should be replaced before leaks occur.</li> <li>• Rail tanks should not be overfilled in Otjiwarongo as the changes in pressure and temperature may cause leakages at the release valves on top of the tankers.</li> </ul>			
	<p><b>Safe Handling Procedures must be followed:</b></p> <ul style="list-style-type: none"> <li>• Use non-sparking tools and explosion-proof equipment. Use in well-ventilated area away from all ignition sources.</li> <li>• Keep product away from high-energy ignition sources, heat, sparks, pilot lights, static electricity, and open flames.</li> </ul>		COMPLIANT	N/A
	<p>All liquid hydrocarbon storage containers should be grounded and bonded.</p> <p>Products must be stored where they are not affected by heat.</p>		COMPLIANT	N/A
	<p><b>Storage and Handling Procedures must be followed:</b></p>		COMPLIANT	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<ul style="list-style-type: none"> <li>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</li> <li>Emergency training and an emergency drill program must be implemented to be given at least every 6 months on Emergency Procedures.</li> </ul>			
	<p><b><i>Safe Offloading Distance must be adhered to:</i></b></p> <ul style="list-style-type: none"> <li>Regular testing of automated fire and leak response systems.</li> <li>Record any irregularities and refer to operation manuals provided by MME for the monitoring of bulk fuel tanks.</li> </ul>		COMPLIANT	N/A
	<p><b><i>Fire Fighting and Fire Prevention:</i></b></p> <ul style="list-style-type: none"> <li>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.</li> <li>All personnel must be sensitised about</li> </ul>		COMPLIANT	N/A



Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	<p>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 out to check for these materials at the site.</p> <ul style="list-style-type: none"> <li>• All fuel storage and handling facilities in Namibia must comply with strict safety distances as prescribed by SANS.</li> <li>• There must be sufficient water available for firefighting purposes, as according to the SANS 089-1 specifications</li> <li>• A holistic fire protection and prevention plan, including an emergency response plan, a firefighting plan and a spill recovery plan is needed.</li> <li>• Regular surveys of the fire-fighting equipment and water supply should be conducted.</li> <li>• 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).</li> </ul>			
<b>Traffic</b>	<p>Uploading of fuel should remain within the working hours as agreed upon in writing for operations of the facility, in order to limit traffic congestion.</p>		<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions	Observations	Compliance comment	Corrective Action/Recommendation
	An efficient fuel uploading schedule must be implemented		COMPLIANT	N/A
<b>Security</b>	<p>Strict security at entry points to prevent unauthorised entry into the facility must be in place.</p> <p>'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.</p>		COMPLIANT	N/A
<b>Terrorism</b>	<p>A comprehensive emergency plan is communicated to all staff and relevant outside institutional bodies. Scheduled drills must include all stakeholders</p> <p>Suspicious persons, vehicles and activities should be noted and approached with caution.</p>		COMPLIANT	N/A
<b>COVID-19</b>	<ul style="list-style-type: none"> <li>The workers should be engaged in health talks and training about the dangers of infections such as COVID-19.</li> </ul>	Included in Induction	COMPLIANT	N/A
	<ul style="list-style-type: none"> <li>Provision of any available public health education information to workers.</li> </ul>	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
<p><b>Waste production</b></p>	<p>All re-usable pipelines, pumps, tanks, valves and other equipment must be removed to another site or sold.</p> <p>Those items that cannot be used again must be scrapped in the appropriate manner.</p> <p>Upon demolition of buildings and concrete, the rubble must be removed from the property and taken to an approved dumpsite designated by the Otjiwarongo Municipality.</p> <p>Rehabilitation, if necessary, is to be done using funds designated for the purpose.</p>	<p>The project has not reached this stage</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
<p><b>Ecological Impact</b></p>	<p>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.</p>	<p>The project has not reached this stage</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>
	<p>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, in order to determine the appropriate handling of the situation</p>		<p><b>COMPLIANT</b></p>	<p>N/A</p>
<p><b>Employment</b></p>	<p>Have a plan in advance for meeting the Labour Act's requirements, in the case where the Proponent is considering retrenching of staff.</p> <p>Where possible staff can be relocated to another facility or town where business</p>	<p>The project has not reached this stage.</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	continues in the same way.			
<b>Dust generation</b>	<p>Regular dust suppression should be included in the Decommissioning Plan, for cases of excessive dust.</p> <p>Personnel should be issued with dust masks for health and safety reasons.</p> <p>Accumulation of rubble that may cause dust must be taken to the dumpsite within reasonable time.</p>	The project has not reached this stage	<b>COMPLIANT</b>	N/A
<b>Noise</b>	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	<b>COMPLIANT</b>	N/A
<b>Visual Impact</b>	Visual impacts could be limited through keeping	The project has not reached this stage	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	all decommissioned areas clean and orderly at all times. Good housekeeping also reduces the risk of injuries			
	Notice of the commencement of the decommissioning should be given to the local authorities with an invitation to give feedback at any time with regards the visual impact.	The project has not reached this stage.	<b>COMPLIANT</b>	N/A
	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	<b>COMPLIANT</b>	N/A
<b>Surface and groundwater contamination</b>	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	The project has not reached this stage	<b>COMPLIANT</b>	N/A

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	<p>discarded.</p> <p>Regulations on sewerage discharge and the chemicals that may and may not be put into the sewerage system must be followed.</p>			
<p><b>Health, Safety and Security</b></p>	<p>Adequate health and safety measures must be included in the decommissioning plan to ensure safety of staff on site, and include:</p> <ul style="list-style-type: none"> <li>• Proper training of operators;</li> <li>• First aid treatment;</li> <li>• Medical assistance;</li> <li>• Emergency treatment;</li> <li>• Prevention of inhalation of fumes (fuel);</li> <li>• Protective clothing, footwear, gloves and belts; safety goggles and masks;</li> <li>• Manuals and training regarding the correct handling of materials should be in place and updated as new or updated material safety data sheets become available; Risks might be lower, but still exist especially</li> </ul>	<p>The project has not reached this stage</p>	<p><b>COMPLIANT</b></p>	<p>N/A</p>

Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	<p>if tanks must be entered for inspections. Confined space training will be required.</p> <ul style="list-style-type: none"> <li>• 24-hour security surveillance in case of opportunistic activities.</li> </ul>			
<p><b>Fire and Explosion Hazard</b></p>	<p>All relevant regulations and precautions should be in place as it was during the Operational Phase.</p> <p>All personnel have to be sensitised about responsible fire protection measures and good housekeeping</p> <p>Regular inspections should still be carried out to inspect and test fire fighting equipment and pollution control materials at the fuel storage facility.</p>	<p>The project has not reached this stage</p>	<p><b>COMPLIANT</b></p>	



Environmental Feature	Management Actions/Monitoring Objectives	Observation	Compliance	Recommended Action
	<p>All fire precautions and fire control at the fuelstorage facility must be in accordance with SANS or better.</p> <p>The holistic fire protection and prevention plan should still be utilised.</p>			

## **SUMMARY OF COMPLIANCE**

This environmental audit has identified 24 management actions. After on site observation, two (2) out of the 24 management actions have been identified as **Non-Compliant**. Twenty-two (22) 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 2 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 NAMCOR Truckport 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 the truck port 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 adhered to at all times. 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 June 2023, and a resultant biannual report will be produced thereafter.

# **APPENDIX A ENVIRONMENTAL AUDIT OF SITE AND INTERVIEW REPORT**

## **1. Summary of the findings of this Environmental Audit**

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

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 historically 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 truck port.

### **1.1 Recommendations and Conclusions**

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

## **2. Purpose of the Assessment**

Excel Dynamic Solutions Pty Ltd (EDS) has performed a Phase I Environmental Audit ("EA") of the Commercial Truck port in Otjiwarongo in the Otjozondjupa Region. EDS was authorized to perform this work on December 2022, by National Petroleum Corporation of Namibia (NAMCOR).

This EA 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 in Section 1.0 of this report. The location of the Subject Truck port and surrounding properties is shown on Figure 1.

The purpose of the Environmental Audit 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 the truck port: (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 truck port 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 truckport 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 Client and addressed during this assessment.

Typically, a Phase I Environmental Audit 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 Environmental Audit, if required.

## **2.1 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 by 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.

## **2.2 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 Client (Coordinator), designated representatives of the Client 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 Client, designated representatives of the Client, truck port personal interviews and has assumed that such information is accurate and complete. EDS assumes information provided by or obtained from the client is accurate and complete. EDS assumes that the Client Coordinator, Client representatives including the Site Manager used good faith in answering questions and in obtaining information for the subject truck port. 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 Managers if required in the future.

### **3. 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 assessment performed in 2018 by Environmental Compliance Consultancy (ECC) CC and other environmental reports produced in the Otjiwarongo 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 truck port to identify recognized environmental conditions as indicated by:

- Stained or disturbed soils and/or pavement;
- Stressed vegetation;
- 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 observed for similar obvious concerns referenced above. Additionally, the general surrounding area land usage was observed to the extent identified while accessing the Truck port.

### *Task 3: Interviews*



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

## **4. Site Location**

### **4.1 Subject Truck port**

The Truck port is located on Portion A/19 and Portion 19/56 of Farm Otjitasu in Otjiwarongo in the Otjozondjupa Region.

## **5. Physical Setting**

### **5.1 General Topographic Setting**

The elevations of the Otjiwarongo Town range between 1 471 and 1 504 and meters above sea level. The elevation of the Truckport is approximately 1,450 m above mean sea level and the surface is relatively flat.

### **5.2 Surface Water**

The Region is home to one ephemeral river system - the Large Omuramba Omatako drainage line. On the northern side of the town is a creek that runs in a western-eastern side. The creek is dry most of the year and only flows during rainy seasons.

### **5.3 Soils**

The Otjiwarongo soils are classified as Leptic-Skeletal Regosols. The dominant soil type in the area is the Regosols. According to the International Soil Reference and Information Centre (ISRIC), regosols are very weakly developed mineral soils in unconsolidated materials that have only an ochric surface horizon and that are not very shallow (Leptosols). Regosols are extensive in eroding lands, arid and semi-arid areas and in mountain regions.

### **5.4 Geology /Hydrology**

The geology of Otjiwarongo area is characterized by Damara Supergroup and Gariep Complex comprising of rock units such as granites, marbles, schists and quartzites. The Town of Otjiwarongo is situated in the karst environment (dolomite aquifers) of the Otavi Mountain Land groundwater basin.

## **6. Record Review**

### **6.1 Environmental Records Review**

Environmental records (environmental audit report) from the from the previous environmental professional were obtained for EDS by the Project Coordinator (Client).

### **6.2 Historical Information Review**

The following historical use information was reviewed:

#### ***6.2.1 Historical Topographic Map***

EDS reviewed a historical topographic map of the Truck port 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 Truckport map.

#### ***6.2.2 Previous Environmental Reports***

A previous environmental assessment of the Truck port was conducted by ECC in 2018. The assessment reports did not identify RECs.

## **7. Data Gaps**

After reviewing the above sources of information regarding the historical information on the Truck port, 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 Truck port except the absence of the Environmental Management Plan.

## **8. Interviews and Specialized Knowledge**

### **8.1 Truck port Representative Interview**

An interview with Mr. Brian Mesa, a representative of the Client at the Otjiwarongo truck port site. The site audit visit was conducted in January 2023. According to Mr. Mesa who has been associated with the truck port for over 5 months, the truck port has been in operation since 2018. He was not aware of any other environmental issues with the truck port and was not aware of any environmental violations or liens on the truck port and indicated that he had no knowledge of any storage, handling or dumping of hazardous materials on the truck port.

### **8.2 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 truck port, if he had any specialized knowledge of environmental conditions associated with the Subject truck port.

## **9. Site Reconnaissance**

EDS conducted a site visit of the truck port and observed the condition of the truck port in January 2023. A depiction of the truck port and surrounding area configuration is provided in the Figures 1. Weather conditions at the time of the site reconnaissance were sunny. 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 truck port reconnaissance, EDS looked for the following items, which could indicate the potential presence of RECs on the truck port.

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

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

- ***Odors***

No strong, pungent or noxious odors were noted or reported that would indicate the potential for RECs at the truckport were noted emanating from either the truck port.

- ***Pools of Liquids***

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

- ***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 Subject truck port.

- ***Heating and Cooling Source***

The office area is heated by electricity supplied by CENORED 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 truck port 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 truck port.

- ***Stained Soil & Pavement***

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

- ***Stressed Vegetation***

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

- ***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.

- **Waste Water**

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 site

### 9.1. Site Observations





Figure 2 Some of the key areas of the truck port facility

## **10. Recommendations and Conclusions**

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

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 Truck port except for the following:

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

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 Truck port, and that the MEFT considers renewal of the ECC.

## **11. Limitations**

No environmental assessment or investigation is infallible. Some uncertainty will always exist concerning the presence or absence of potential Recognized Environmental Conditions at a particular truck port, irrespective of the rigor of the investigation. Accordingly, EDS does not

warrant that Recognized Environmental Conditions, other than those identified in this report, do not exist at the subject truck port 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.