ENVIRONMENTAL MANAGEMENT PLAN

THE ENDOLA SERVICE STATION, ENDOLA, OHANGWENA REGION, 2016.

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Client:

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Reviewed by:

EARTH ENVIRONMENTAL SERVICES

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LIST OF ACRONYMS

ATM	Automatic teller machine
ECO	Environmental Control Officer

EIA	Environmental Impact Assessment
EMP	Environmental Management Plan

1. INTRODUCTION

Radial truss Industries (Pty) Ltd (hereinafter referred to as the Proponent) intents to develop a retail fuel service station in Endola, Ohangwena Region. The fuel retail service station is planned to be constructed in Endola, Ohangwena Region. The plot is located along the Oshakati – Onhuno MR120 highway that connects the regions of Oshana and Ohangwena as indicated in Figure 1. The footprint of the service station is approximately 10% of the total land size and includes but not limited to canopied forecourt housing fuel pumps, 24/7 Convenience Store, kitchen and restaurant, modern bar and wine shops, banking automatic teller machine (ATM's), Ablution facilities and adequate paved parking bays. The remaining prime land will be used for other commercial development opportunities in future such as guest houses and rental rooms, open rental stores etc.

This Environmental Management Plan (EMP) has been drafted as part of the Environmental Scoping Report which was compiled in terms of the Environmental Management Act, No. 7 of 2007, for the construction and operation of the Endola Service Station.

1.1. PURPOSE OF THE DOCUMENT

An EMP is a live document that aims to provide management measures to address the environment effects that have been identified in the EIA report and to give possible mitigation measures/recommendations to address these effects. It is essential for personnel involved on the ground to be fully aware of the possible environmental issues and the means to avoid or minimize the potential impacts of activities on site.

The primary objectives of the EMP are as follows:

- To describe action plans for achieving the mitigation measures described in theEIA.
- To indicate responsibilities, schedules, and staff resources regarding the implementation of these action plans.
- To highlight a monitoring programme, that will enable review of the success ofthe EMP and the provision of such information to the relevant decision-makers.

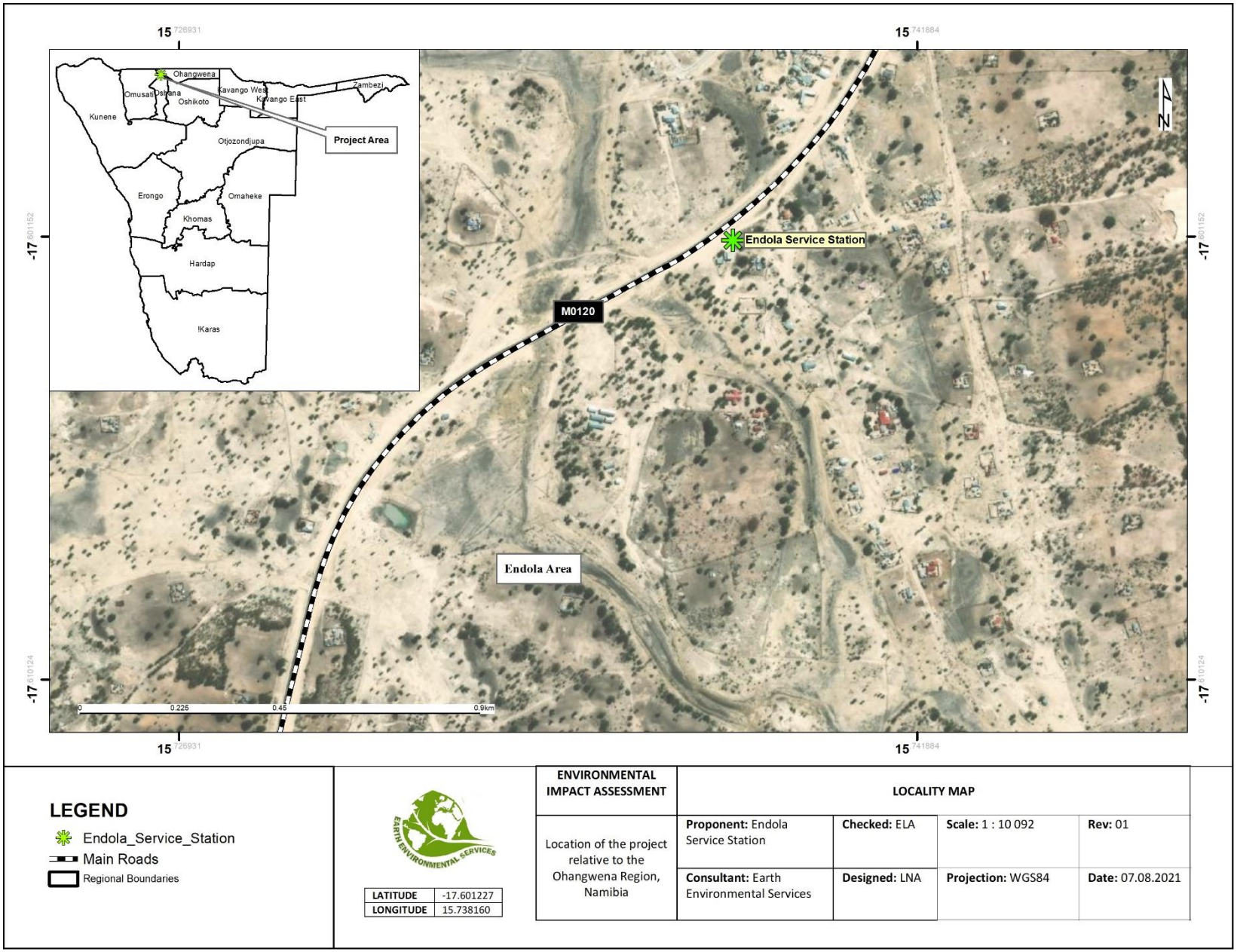

Figure 1 - Location of the proposed service station, in Endola, Ohangwena Region.

2. ENVIRONMENTAL MANAGEMENT PRINCIPLES

Radial Truss Industries (Pty) Ltd will ensure that all parties involved in the project follow company aims as listed below:

1) **All personnel will be required to conduct activities in a manner that is environmentally and socially friendly. This includes all consultants, employees, contractors, and sub-contractors, transporters, guests and anyone entering the premises**.

2) **Health, Safety and Social Well Being**
    - Safeguard the health and safety of project personnel and the public against potential impacts of the project. These includes issues of road safety, precautions against dangers on site, potential hazards; and,
    - Promote good relationships with the surrounding settlements and other stakeholders.

3) **Biophysical Environment**
    - Wise use and conservation of environmental resources, giving due consideration to the use of resources by present and future generations;
    - Prevent or minimise environmental impacts;
    - Minimize air, water, and soil pollution; and
    - Conserve Biodiversity.

The following principles need to be maintained in order to attain the purpose of the project:

a) Commitment and Accountability

Company senior executives and line managers will be held responsible and accountable for:

- Health and safety of site personnel while on duty,
- Environmental impacts caused by construction and operational activities or by personnel engaged in the daily operations of the site.

b) Competence

The company will ensure a competent work force through appropriate selection, training, and awareness in all safety, health and environmental matters.

c) Risk Assessment, Prevention and Control

Identify, assess and prioritise potential environmental risks. Prevent or minimize risks through careful planning and design, allocation of financial resources, management and workplace procedures. Intervene promptly in the event of adverse impacts arising.

d) Performance and Evaluation

Set appropriate objectives and performance indicators. Comply with all laws, regulations, policies and the environmental specifications. Implement regular monitoring and reporting of compliance with these requirements.

e) Stakeholder Consultation

Create and maintain opportunities for constructive consultations with employees, authorities, and other interested or affected parties. Seek to achieve open exchange of information and mutual understanding in matters of common concern.

f) Continual Improvement

Through continual evaluation, reports, and innovation, seek to improve performance with regard to social health and well-being as well as environmental management throughout the lifespan of the project.

g) Financial Provisions for retail activities

In line with the internationally recognised "polluter pays principle" the company will make the necessary financial provision for compliance with the EMP.

3. ROLES AND RESPONSIBILITIES FOR ENVIRONMENTAL MANAGEMENT

There are at least five role-players participating in the environmental management of the site, including:

- Puma Energy (Oil Company and Developer)
- Proponent (Radial Truss Industries)
- Project Manager
- Environmental Control Officer (ECO)
- Contractors and Service Providers.

3.1 PROPONENT (RADIAL TRUSS INDUSTRIES)

Overall responsibility for the implementation of the EMP lies with Radial Truss Industries, Radial Truss Industries should delegate suitably qualified person(s) with the responsibility to ensure implementation of the EMP, and will:

- As a minimum requirement, comply with all relevant local, provincial, and national legislation.
- Manage and use land, raw materials, and resources responsibly in order to minimize the disturbance of the prevailing ecology.
- Minimize the potential for deterioration of air quality during all project phases.
- Avoid "disturbing" noise levels or more at the border of the property from which the noise emanates).
- Minimize the use of clean water and avoid water wastage.
- Prevent the contamination of surface and ground water as a result of the service station activities.
- Ensure that an appropriate Emergency Procedure is in place to safeguard the environment, local community, and employees.
- Practice the reduction and recycling of waste materials.
- Enhance the creation of direct job opportunities for the surrounding communityand contribution of the project to the local economy, especially during labour intensive phases (construction and operation).
- Reduce the disturbance of the surrounding community from site activities to a minimum.

- Maintain transparent relations with the Interested & Affected Parties (I&APs) (including surrounding community, authorities, and employees).
- Ensure that the community and employees are not subjected to increased safety hazards.

3.2 SITE MANAGERS

- Be familiar with the content of the EMP and applicable sections of the EIA and the measures recommended therein;
- Monitor compliance with the environmental specifications on a daily basis and enforce the environmental compliance on site by communicating the Environmental Control Officer (ECO) directions to all personnel involved;
- In the event of any infringements leading to environmental damage, personnel need to consult with the ECO and seek advice on any remedial measures to limit or rectify the damage;
- Maintain a record (photographic and written) of "before-and-after" conditions on site;
- Facilitate communication between all role players in the interests of effective environmental management; and,
- Plan and mark out new access routes in advance and arrange for plant surveys by a suitably qualified person so that forest permits can be applied for.

3.3 THE PROJECT MANAGER

The duties of the Project Manager or his nominated authority are as follows:

- Familiarize themselves with the requirements of the EMP,
- Monitor employees' and contractors' compliance with the environmental specifications and enforce adherence
- Communicate all environment related incidents with the Environmental Control Officer and distribute internally to avoid repeats
- Coordinating the safe installation of the USTs and associated infrastructure.
- Maintain a record of activities relevant to environmental management,
- Project Manager shall be responsible for monitoring and the enforcement of the environmental management specifications on a day-to-day basis. Any violation of the environmental specifications shall be recorded and the agreed on disciplinary measures taken.

- Undertake environmental audits of overall compliance with the environmental specifications. This should be done at least bi-annually for the exploration area,
- Submit a site inspection report to the Managing Director,
- Make recommendations for remedial action in cases of non-compliance with the environmental specifications.
- The report should be submitted to the MEFT periodically at the time interval stipulated by law.

3.4 ENVIRONMENTAL CONTROL OFFICER

The ECO will inspect operational areas on a quarterly basis and at the onset of construction activities, to ensure that all specifications are met. The duties of the Environmental Control Officer will be the following:

- Advise the contractor and project management team in respect of implementation of the environmental specifications
- Conduct visits to ensure all work is aligned to the EMP
- The ECO shall inspect the site during the quarterly visits. All rehabilitation results will be included in the quarterly report
- Conduct inspections of the rehabilitation area and give guidance regarding rehabilitation measures if any.

3.5 SENIOR PERSONNEL AND CONTRACTORS

The duties of the senior personnel/contractors are as follows:

- Familiarize themselves with the requirements of the EMP,
- Comply with the environmental management specifications,
- Familiarize themselves with the requirements of the EMP and comply with the environmental specifications within;
- Conduct or arrange for environmental training for employees and sub-contractors;
- Undertake rehabilitation measures where required by the EMP. As far as possible, rehabilitation measures should be carried out progressively and not left till the end of the project.
- Ensure that all team members are familiar with the environmental management specifications.

4. LEGISLATION FRAMEWORK AND RELATED CONTACT PERSON

TABLE 1 - LIST OF EMERGENCY CONTACTS

ASPECT	LEGISLATION	MANAGEMENT REQUIREMENTS	CONTACT PERSON
Environmental	Environmental Management Act 7 of 2007 EIA Regulations (EIAR) GN 57/2007 (GG 3812)	The amendment, transfer or renewal ofthe Environmental Clearance three years hereafter	Mr. Freddy Sikabongo/ Ms. Saima Angula Tel: 061-284 2751
Archaeology	National Heritage Act 27 of 2004	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.	Mr. Salomon April Tel: 061-244 375 / 385/594
Forestry	Forest Act 12 of2001 Nature Conservation Ordinance 4 of 1975	Trees, shrubs, and bushes within 100 m from a watercourse may not be cut, destroyed or removed without a permit. A Harvesting Permit is requiredif wood is to be collected (harvested) for use as fuel.	Mr. Ambuga Tel: 061-265450
Labour	Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions ofthe Labour Act and the Health and Safety regulations.	Labour Law Advice: Tel: 061-309 957
Water	Water Resources Management Act 13 of 2013	Water licenses are required for water abstraction, use as well as river diversions	Elize Mbandeka Tel: 061-208 7141
Petroleum Products	Petroleum Products and Energy Act 13 of 1990	The Act deals with the evaluation of license applications, do recommendations and issue licenses. It deals with day-to-day inquiries on licensing matters and follows ups on outstanding documentation.	Tel: +264-61-284 8111 Email: info@mme.gov.na

5. ENDOLA SERVICE STATION MITIGATION MEASURES

The following table provides a large-scale overview of all the major environmental management aspects. This table serves to act as quick reference (by colour), for the detailed mitigation details that follow below. The identified impacts in the Scoping Study are mitigated under these themes.

TABLE 2 - PROJECT PHASES AND THEIR CODE OF ACTION

Phase	Aspect	Mitigation Details
Site Establishment	Access Control	Section A
	Construction Site Set up	Section A
	Storage Areas	Section A
	Education of Site Staff on	Section A
	General Environmental Conduct	Section A
Construction	Maintenance of Construction Site	Section B
	Dust/Air Pollution	Section B
	Soil Erosion	Section B
	Stormwater	Section B
	Water Quality	Section B
	Conservation of the Natural Environment	Section B
	Waste Management Procedure	Section B
	Noise and Visual Impact	Section B
	Cultural Environment	Section B
	Installation of USTs	Section B
Post Construction	Construction Camp Rehabilitation	Section C
	Vegetation Reinstatement	Section C
	Land Rehabilitation	Section C
Operational	Health and Safety	Section D
	Traffic	Section D
	Soil and Groundwater Contamination	Section D
	Air Quality	Section D
	Noise	Section D
	Visual	Section D

5.1SECTION A: SITE ESTABLISHMENT

TABLE 3 - SITE ESTABLISHMENT MANAGMENT MEASURES

ASPECT	MANAGEMENT DETAILS	RESPONSIBLE PERSONS	FREQUENCY
Access Control	• The Local Traffic Department must be informed at least a week in advance if the traffic in the area is affected during construction. • Person and vehicle access should be restricted during construction so as to control access to otherwise potentially dangerous excavations and materials. • The remote filler points on the tanks should be so situated that it is possible for the tanker to be able to enter and leave the premises without having to reverse, and can park safely when bulk fuel deliveries are being made • Movement of construction vehicles potentially impacting on urban infrastructure should be mitigated through the use of appropriate warning signs, and not entering or leaving the site during peak traffic hours.	Contractor, Project Manager	Prior to the startof the works
Setting up Constructio n Camp	**Layout** • The proposed site will act as the Contractors Camp. Should the contractor require additional space, full consultation shall take place with the relevant landowners, and written consent submitted to the Project Manager prior to establishment of the construction camp. • There will be no overnight accommodation available at the Contractors Camp except for the contractor only. • The size of the construction camp should be kept to a minimum. • Adequate parking must be provided for staff and visitors. • The contractor must attend to the drainage of the camp site to avoid standing water and / or sheet erosion	Contractor, Project Manager	Prior to the startof the works

ASPECT	MANAGEMENT DETAILS	RESPONSIBLE PERSONS	FREQUENCY
Setting up Construction Camp	**Ablutions** • Until the conservancy tanks become operational, temporary chemical toilets must be provided by a company approved by the Project Manager. These toilets must be made available for all site staff and should be situated more than 50m from any natural water-body. • Under no circumstances may open areas or the surrounding bush or degraded and built-up areas be used as a toilet facility.	Contractor, Project Manager	During Site up On-going
	Provision for Camp Waste Disposal • Bins and / or skips shall be provided at convenient intervals for disposal of waste within the construction camp. • Bins should have liner bags for efficient control and safe disposal of waste. • Recycling and the provision of separate waste receptacles for different types of waste should be encouraged	Contractor	During Site Set up
Establishing Storage Areas	**General Substances and Materials** • Choice of location for storage areas must take into consideration prevailing winds, distance to water bodies and general on-site topography. • Storage areas must be designated, demarcated, and fenced if necessary. • Storage areas should be secure to minimize the risk of crime. • They should be safe from access by children and animals etc. • Fire prevention facilities must be present at all storage facilities.	Contractor, Project Manager	On-going
Establishing Storage Areas	**Hazardous Material Storage** • Hazardous substances are those that are potentially poisonous, flammable, carcinogenic, or toxic. Some examples are diesel, petroleum, oil, bitumen, cement, solvent based paints, lubricants, explosives, drilling fluids, pesticides. • Material safety Data Sheets (MSDSs) shall be readily available on site for all chemicals and hazardous substances to be used on site. Where possible and available, MSDSs should additionally include information on ecological impacts and measures to minimize negative environmental impacts during accidental releases or escapes. • Hazardous storage areas must be bunded with an impermeable liner to protect		

ASPECT	MANAGEMENT DETAILS	RESPONSIBLE PERSONS	FREQUENCY
	groundwater and soil from contamination. The Contractor shall submit a method statement to the Project Manager for approval. • Fuel tanks and refueling will not be permitted on the site. • Storage areas containing hazardous substance materials must be clearly sign posted. • The proximity of houses, schools etc. should be taken into consideration when deciding on storage areas for hazardous substances. • Residents living adjacent to the construction site must be notified of the existence of the hazardous storage area. • Staff dealing with these materials / substances must be aware of their potential impacts and follow appropriate safety measures. • Contractors shall submit a method statement and programs for the storage of hazardous materials and emergency procedures		
Education of Site Staff on General Environmental Conduct	**Environmental Education and Awareness** • Ensure that all site personnel have a basic level of environmental awareness training. The Contractor must submit a proposal for this training to the ECO for approval. Topics to be covered should include: ○ What is meant by "environment"; ○ Why the environment needs to be protected and conserved ○ How construction activities can impact on the environment; ○ What can be done to mitigate against such impacts; ○ Awareness of emergency and spills response provisions; ○ Social responsibility during construction, e.g. being considerate to local residents. • It is the contractor's responsibility to provide the site foreman with no less than 1 hour's environmental training and to ensure that the foreman has sufficient understanding to pass this information onto the construction staff. • Translators are to be used where necessary. • The Project Manager / ECO should be on hand to explain more difficult / technical issues and to answer questions. • The use of pictures and real-life examples is encouraged as these tend to be more easily remembered	Environmental Control Officer (ECO), Contractor	During staff induction andongoing

ASPECT	MANAGEMENT DETAILS	RESPONSIBLE PERSONS	FREQUENCY
	• Use should be made of environmental awareness posters on site. • The need for a 'clean site' policy also needs to be explained to the construction workers.		
Education of Site Staff on General Environmental Conduct	**Workers Conduct on site** • A general regard for the social and ecological wellbeing of the site andadjacent areas is expected of the site staff. Workers need to be made aware of the following general rules: • No alcohol / drugs to be present on site. • No firearms allowed on site or in vehicles transporting staff to / from site(unless used by security personnel). • Prevent excessive noise. • Prevent unsocial behaviour. • Bringing pets onto the site is forbidden. • No harvesting of firewood from the site or from the adjacent areas. • Construction staff are to make use of the facilities provided for them, asopposed to ad-hoc alternatives, (e.g., fires for cooking, the use of surrounding areas / bush as a toilet is forbidden). • Trespassing on private / commercial properties adjoining the site is forbidden. • Driving under the influence of alcohol is prohibited. • Other than the pre-approved security staff, no workers shall be permittedto live on sit.	Contractor, Employees, Environmental Control Officer (ECO)	

5.2 SECTION B: CONSTRUCTION PHASE

TABLE 4 - CONSTRUCTION PHASE MANAGEMENT MEASURES

ASPECT	MANAGEMENT GUIDLINE	RESPONSIBLE PERSONS	FREQUENCY
Maintenance of ConstructionSite	**Ablutions** • Chemical toilets are to be maintained in a clean state and should be moved to ensure thatthey adequately service the work areas. • The Contractor is to ensure that open areas or the surrounding bush are not being used as atoilet facility. • The use of chemical toilet facilities during the construction phase must not cause any pollution to any water resources nor pose a health hazard. In addition, these toilets must be situated out of the 1:100-year flood line of any watercourse	Contractor, Employees, Environmental Control Officer(ECO)	On-going with Weekly Inspections by ECO
	Eating Areas • Eating areas should be regularly serviced and cleaned to ensure the highest possiblestandards of hygiene and cleanliness. • All litter throughout the site should be picked up and placed in the bins provided.	Contractor Employees, Environmental Control Officer (ECO)	On-going with Weekly Inspections by ECO
	Housekeeping • The Contractor shall ensure that his camp and working areas are kept clean and tidy at alltimes.	Contractor	On-going with Weekly Inspections
	Waste Disposal • The Contractor shall ensure that all litter is collected from the work and camp areas daily. • Bins and / or skips should be emptied regularly, and waste should be disposed of at a registered landfill site. Waybills for all such disposal are to be kept by the Contractor forreview by the Engineer / ECO. • A registered chemical waste company is to be used to remove waste from chemical toilets on site.	Contractor	On-going with Weekly Inspections by ECO

Dust/Air Pollution	**<u>Air Quality</u>** • Vehicles travelling along the access road must adhere to the speed limits to avoidcreating excessive dust. • Access and other cleared surfaces must be dampened whenever possible and especially in dry and windy conditions to avoid excessive dust • The Contractor must make alternative arrangements (other than fires) for cookingand / or heating requirements. LPG gas cookers / heaters may be used provided that all safety regulations are followed. • Vehicles and machinery are to be kept in good working order and to meet manufacturers specifications for safety, fuel consumption etc.	Contractor	On- going
Soil Erosion	**<u>Conservation of Valuable Soil Resources</u>** • Wind screening and storm water control should be undertaken to prevent soil lossfrom the site. • Once an area has been cleared of vegetation, the top layer (nominally 150mm) ofsoil should be removed and stockpiled in a designated area.	Contractor	On- going
Stormwater	**<u>Stormwater Damage Prevention</u>** • To prevent storm water damage, the increase in storm water runoff resulting from the construction activities must be estimated and the drainage system accessed accordingly. A drainage programme must be submitted to the Engineer for approval. • Temporary cut-off drains and berms maybe required to capture stormwater and promote infiltration, or to divert stormwater flow to avoid gulley erosion	Contractor, Project Manager	Monitoring throughout the duration of the project.

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Water Quality	**Maintenance of Water Quality** • Storage areas that contain hazardous substances must be bunded with an approved impermeable liner. • Spills in bunded areas must be cleaned up, removed, and disposed of safely from the bunded area as soon after detection as possible to minimize pollution risk and reduced bunding capacity. • Provision should be made during set up for all polluted runoff to be treated to the Engineers approval before being discharged into the stormwater system (this will be required for the duration of the project). • Site staff shall not be permitted to use any watercourse or natural water source adjacent to or within the designated site for the purposes of bathing, washing of clothing of for any construction related activities. Municipal water (or another source approved by the ECO should instead be used for all activities such as washing of equipment or disposal of any type of waste, dust suppression, concrete mixing, compacting etc.	Environmental Control Officer(ECO)	Regular monitoring
Conservation of the Natural Environment	**Fauna and Flora** • No vegetation may be cleared without prior permission from the ECO or PM. • Trees that are not to be cleared should be marked beforehand with danger tape. The ECO must be given a chance to mark vegetation that is to be conserved before the Contractor begins clearing the site. • Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. • Disturbance to birds, animals and reptiles and their habitats should be minimized Wherever possible.	Environmental Control Officer(ECO), Project Manager	Ongoing Monitoring.
Set up of Waste Management Procedures	**Waste Management** • The excavation and use of rubbish pits are forbidden. • Burning of waste is forbidden. • A fenced area must be allocated for waste sorting and disposal. • Individual skips for different types of waste (e.g. 'household' type refuse, building rubble, etc.) should be provided. • Littering on site is forbidden and the site shall be cleared of litter at the end of each working day	Environmental Control Officer(ECO)	Ongoing monitoring

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Noise and Visual Impacts	**Noise Impacts** • Construction vehicles are to be fitted with standard silencers prior to the beginning of construction. • Equipment that is fitted with noise reduction facilities will be used as per operating instructions and maintained properly during site operations.	Environmen talControl Officer(ECO)	Ongoing
	Visual Impacts • Storage facilities, elevated tanks and other temporary structures on site should be located such that they have as little visual impact on local resident as possible. • Special attention should be given to the screening of highly reflective materials on site.	Contractor, Environment alControl Officer(ECO)	Ongoing
Installation of Undergroun d Storage tanks	**Underground Storage Tanks** • The USTs must comply with the relevant SANS/SABS Codes of Practice whichinclude: o SABS 089-3 : 1991 o SABS 0131-1 : 1977 • SANS 10089 Parts 2 & 3 which requires: o The installation of a leak detection system including observation and monitoring wells situated around the tank to facilitate early warning thata leak has arisen. o The provision of a plastic sheet below the tank that slopes towards an observation well. o Installation of leak detectors on the pressure systems. o The installation must comply with local authority bylaws. o The Underground Storage Tanks must be fitted with an overfill protection device. o The tanks must be designed so as to reduce the risk of soil and groundwater contamination. o The Underground Storage Tanks must be dipped daily and reconciledagainst volume to check for losses due to leakage. o The condition of the tanks, associated piping and the monitoring wellsmust be inspected on a regular basis. o The tanks and product lines must be pressure tested prior to commissioning.	Contractor, Project Manager, Engen	Prior to the start ofthe works

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Installation of Underground Storage tanks	**<u>Spill Contingency Plan</u>** • Spillages occurring at the filler point and dispensing (i.e. offloading) area must be contained and cleaned up. Any water containing waste (wastewater) generated as a result of the spillage and associated clean up, must be disposed of safely and in accordance with environmental legislation. No product must be allowed tobe discharged into municipal storm water / sewer system and or surrounding environment. • A Spill Contingency or Emergency Response Plan must be drawn up and shouldinclude the following actions that need to be taken into account in the event of a spill: • Stop the source of the spill; • Contain the spill; • Report the spill to the Project Manager. • Remove the spilled product for treatment or authorized disposal; • In the case of a minor spillage clean the affected area and drum all contaminated material for temporary storage until the waste can be collected and disposed of bya registered hazardous waste disposal contractor. In the case of a significant spillage the local authority will advise on appropriate emergency action protocol tobe followed for the type of spillage; • The Project Manager is to determine in conjunction with the ECO if there is anysoil, groundwater or other environmental impact; • The incident and remedial action taken must be documented by the Project Manager and kept on file for reference purposes.	Project Manager Engen, Contractor	Prior to construction Commencement and during construction Activity

5.3SECTION C: OPERATIONAL PHASE

TABLE 5 - OPERATIONAL PHASE MANAGEMENT MEASURES

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Health and Safety	• Relevant operational staff must receive training on the correct operation of the storage tanks, as well as maintenance and repair procedures when leaks are detected. • An emergency response plan must be available on site and employees must be familiar with the plan. • The correct PPE should be used on the site. • Appropriate Health & Safety signage must be placed on and around the tank. • Fire extinguishers and sandbags must be readily available onsite and easily accessible. • Firefighting equipment must comply with regulations. Extinguishers - Halogenated hydrocarbon type extinguishers) and be inspected regularly. • No smoking may be permitted on site. • No cell phones may be used during fuel dispensing. • Overfill and spillages during tanker refueling and fuel dispensing should be prevented by the installation of automatic cut off devices • Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch and a fire extinguisher. • A closed coupling must be used when fuel is being transferred from the bulk delivery vehicle to the USTs to prevent fugitive emissions	Engen, Radial Truss Industries	Throughout operation phase
Traffic associated with the bulkdelivery of petrol and diesel	• Delivery times should be scheduled so that they do not conflict with other deliveries/removals. • There is to be sufficient turning space for delivery vehicles	Engen, Radial Truss Industries	Throughout operation phase

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Soil and Groundwater Contamination	• Regular inspection of all pipes, tanks and other associated infrastructure. • Accidental spills that occur outside of the bund area must be contained and prevented from entering the stormwater system. • Spills must be treated with the appropriate spill absorbent. • Any significant spills or leak incidents must be reported in terms of the National Environmental Management Act and the Water Act. • USTs must be fitted with automatic leak detectors that alert management to a leak. • Fuel dispenser pumps must be located on a hardened surface to contain spillages. • The accumulated contents of the oil/water separator must be removed by an accredited company. • The oil/water separator must be inspected regularly to ensure that it is functioning at all times. • Water discharged from the oil/water separator must be monitored to ensure it meets the required standard. • Overfill and spillages during tanker refueling and fuel dispensing should be preventedby the installation of automatic cut off devices. • Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch. • All forecourt staff must undergo appropriate training, which must include training to prevent spillages during fuel dispensing. • The USTs, pipelines and other associated infrastructure must be inspected regularly for leaks and to ensure structural integrity	Engen, Radial Truss Industries	Throughout operation phase
Air Quality	• USTs to be fitted with breather pipes. • Vent pipes to be fitted such that they face away from the neighbouring residential areas. • All Engen delivery vehicles will be adequately maintained to reduce exhaust emissions.	Contractor, Engen	Throughout operation phase

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Noise	• A grievance procedure will be established whereby noise complaints can be received, recorded and responded to appropriately. • Equipment such as mechanical equipment, extraction fans, refrigerators that are fitted with noise reduction facilities (e.g. side flaps, silencers etc.) must be used as per operating instructions and maintained properly. • Noise levels should comply (recommended noise levels) set within the regulations: The Labour Act 12 of 1992: Relating to the Health and Safety of Employees at work. • Local by-laws for noise levels must be adhered to. • Noise, especially at night, should be kept to a minimum.	Proponent	Through out operatio n phase
Visual	• Litter and waste should be effectively managed to avoid visual problems in the area. • Buildings and landscaping should receive on-going maintenance to avoid visual decay. • Buildings and landscaping should receive on-going maintenance to avoid visual decay.	Proponent	Through out operatio n phase

5.4 SECTION D: POST CONSTRUCTION PHASE AND DECOMMISSIONING PHASE

TABLE 6 – DECOMMISSIONING MANAGEMENT MEASURES

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
Construction Camp Rehabilitation	**Construction Camp Rehabilitation** • All structures comprising the construction camp are to be removed from site. • The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint and fuels, etc. and these should be cleaned up. • All hardened surfaces within the construction camp area should be ripped, all imported materials removed, and the area shall be top soiled and re-grassed using the guidelines set out in appropriate revegetation specifications • The Contractor must arrange the cancellation of all temporary services.	Contractor and Environmental Control Officer (ECO)	Project completion
Vegetation	**Reinstatement of Vegetation** • All areas that have been disturbed by construction activities (including the construction camp area) must be cleared of all alien's invasive vegetation. • Open areas to be re-planted as per the revegetation specification. • All vegetation that has been cleared during construction is to be removed from site or used as much as per the revegetation specification, (except for seeding alien invasive vegetation). • The Contractor is to water and maintain all planted vegetation until the end of the defect liability period and is to submit a method statement regarding this to the Project Manager.	Contractor and Environmental Control Officer (ECO)	Project completion
Land Rehabilitation	Land Rehabilitation • All rubble is to be removed from the site to a registered municipal landfill site. Burying of rubble on site is prohibited.	Contractor and Environmental Control Officer (ECO)	Project completion
Land Rehabilitation post closure of the site	• All buried underground tanks are to be decommissioned either by complete removal out of the ground or filled with concrete and cement, pumps islands and all erected retail structure need to be removed. • Land to be restored to its original phase as predevelopment.	Contractor and Environmental Control	Only in the event of indefinite closure of

ASPECT	MANAGEMENT GUIDELINE	RESPONSIBLE PERSONS	FREQUENCY
		Officer (ECO)	the service station

6. CONTACT DETAILS OF RELAVANT PERSONNEL

TITLE	*CONTACT PERSON*	*CONTACT DETAILS*
Radial Truss Industries		
Engen contact		
Project Manager		
Environmental Consultant		
BuildingContractor		
Hazardous Waste Disposal Contractor		

APPENDIX A – ECC

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT AND TOURISM

Tel: (00 26461) 284 2111
Fax: (00 26461) 229 936

E-mail: rikka.shikongo@met.gov.na

Enquiries: Ms. Rikka Shikongo

Cnr Robert Mugabe &
Dr Kenneth Kaunda Street
Private Bag 13306
Windhoek
Namibia

18 November 2016

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

The Managing Director
Radial Truss Industries Pty (Ltd)
P. O. Box 27514
Windhoek

Dear Sir/Madam

SUBJECT: ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE CONSTRUCTION AND OPERATION OF A SERVICE STATION AT ENDOLA, OHANGWENA REGION

The Environmental scoping report and Environmental Management Plan submitted are sufficient as these have made an adequate provisions of the environmental management concerning the proposed activities. From this perspective regular environmental monitoring and evaluations on environmental performance should be conducted. Targets for improvements should be established and monitored from time to time.

This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project.

On the basis of the above, this letter serves as an environmental clearance certificate for the project to commence. However, this clearance letter does not in any way hold the Ministry of Environment and Tourism accountable for misleading information, nor any adverse effects that may arise from this project's activities. Instead, full accountability rests with Radial Truss Industries Pty (Ltd) and their consultant.

This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office.

Yours sincerely,

P/Bag 13306
Windhoek, Namibia
2016 -11- 24

Teofilus Nghitila
ENVIRONMENTAL COMMISSIONER

"Stop the poaching of our rhinos"

All official correspondence must be addressed to the Permanent Secretary

APPENDIX B – SITE LAYOUT