

**APP-001875**  
**CONSTRUCTION AND OPERATIONS OF THE AGRA**  
**REHOBOTH FUEL RETAIL FACILITY**  
**ENVIRONMENTAL MANAGEMENT PLAN**



**Assessed by:**



**Assessed for:**



July 2023

<b>Project:</b>	<b>CONSTRUCTION AND OPERATIONS OF THE AGRA REHOBOTH FUEL RETAIL FACILITY: ENVIRONMENTAL MANAGEMENT PLAN</b>	
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<b>Prepared for: (Proponent)</b>	Agra Ltd Private Bag 12011 Windhoek	
<b>Lead Consultant</b>	Geo Pollution Technologies (Pty) Ltd PO Box 11073 Windhoek Namibia	TEL.: (+264-61) 257411 FAX.: (+264) 88626368
<b>Main Project Team:</b>	<b>André Faul</b> (B.Sc. Zoology/Biochemistry); (B.Sc. (Hons) Zoology); (M.Sc. Conservation Ecology); (Ph.D. Medical Bioscience) <b>Johann Strauss</b> (BA Geography/Psychology/Environmental Management) <b>Stefan Short</b> Health and Safety Supervisor/GIS Technician	
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## **1 BACKGROUND AND INTRODUCTION**

Geo Pollution Technologies (Pty) Ltd was appointed by Agra Ltd (the Proponent) to prepare an environmental management plan (EMP) for the construction and operations of a fuel retail facility on Portion B of the Farm Rehoboth Town and Townlands No. 302. The Proponent's operations will play an important role in providing fuel for the local and surrounding farming community, tourists visiting the town, and the transport sector.

## **2 ENVIRONMENTAL MANAGEMENT PLAN**

The EMP provides management options to ensure impacts of the facility are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the operations of the facility. All personnel taking part in the operations of the facility should be made aware of the contents in this section, so as to plan the operations accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of operations, maintenance and possible decommissioning of the facility,
- ◆ to prescribe the best practicable control methods to lessen the environmental impacts associated with the facility,
- ◆ to monitor and audit the performance of operational personnel in applying such controls; and
- ◆ to ensure that appropriate environmental training is provided to responsible operational personnel.

### **2.1 IMPLEMENTATION OF THE EMP**

The EMP provides management options to ensure impacts of construction, operations and decommissioning of the facility are minimised. An EMP is a tool used to take pro-active action by addressing potential problems before they occur. This should limit the corrective measures needed, although additional mitigation measures might be included if necessary. The environmental management measures are provided in the tables and descriptions below. These management measures should be adhered to during the various phases of the construction, operations and decommissioning of the facility. This section of the report can act as a stand-alone document. All personnel taking part in the construction, operations and decommissioning phases of the facility should be made aware of the contents in this section, so as to plan the various activities accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of construction, operations and decommissioning activities of the facility;
- ◆ to prescribe the best practicable control methods to lessen the environmental impacts associated with the project;
- ◆ to monitor and audit the performance of operational personnel in applying such controls; and
- ◆ to ensure that appropriate environmental training is provided to responsible construction and operational personnel.

Various potential and definite impacts will emanate from the construction, operational and decommissioning phases. The majority of these impacts can be mitigated or prevented. The impacts, risk rating of impacts, as well as prevention and mitigation measures are listed below.

As depicted in the tables below, impacts related to the facility are expected to mostly be of medium to low significance and can mostly be mitigated to have a low significance. The extent of impacts are mostly site specific to local and are not of a permanent nature. Due to the nature of the surrounding areas, limited cumulative impacts are possible and include groundwater contamination, waste production, traffic and noise.

### 2.1.1 Planning

During the phases of planning for construction (including future upgrades, maintenance etc.), continued operations and future decommissioning of the facility, it is the responsibility of Proponent to ensure they are, and remain, compliant with all legal requirements. The Proponent must also ensure that all required management measures are in place prior to, and during all phases, to ensure potential impacts and risks are minimised. The following actions are recommended for the planning phase and should continue during various other phases of the project:

- ◆ Ensure that all necessary permits from the various ministries, local authorities and any other bodies that governs the operations of the facility are in place and remains valid. This includes the petroleum products licences.
- ◆ Ensure all appointed contractors and employees enter into an agreement which includes the EMP. Ensure that the contents of the EMP are understood by the contractors, sub-contractors, employees and all personnel present or who will be present on site.
- ◆ Make provisions to have a health, safety and environmental (HSE) coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.
- ◆ Have the following emergency plans, equipment and personnel on site, where reasonable, to deal with all potential emergencies:
  - Risk management/mitigation/EMP/Emergency Response Plan and HSE manuals
  - Adequate protection and indemnity insurance cover for incidents;
  - Comply with the provisions of all relevant safety standards;
  - Procedures, equipment and materials required for emergencies.
- ◆ If one has not already been established, establish and maintain a fund for future restoration of the project site should project activities cease and the site is decommissioned and environmental restoration or pollution remediation is required.
- ◆ Establish and/or maintain a bi-annual reporting system to report on aspects of operations, maintenance and decommissioning as outlined in the EMP.
- ◆ Submit biannual environmental monitoring reports to the MEFT to allow for environmental clearance certificate renewal after three years. This is a requirement by MEFT.
- ◆ Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the environmental clearance certificate prior to expiry.

### **2.1.2 Revenue Generation**

Retailing of fuel contributes to revenue generation which is paid to the national treasury while also contributing to the local economy in terms of increased spending power of employees as well as the sourcing of goods and services. In addition, the operations of the onsite shops and truck stop facilities will also contribute to the generation of revenue. During construction of the new facility, revenue will be generated in the construction industry and its related service providers.

**Desired Outcome:** Contribution to national treasury and provision of employment to local Namibians.

#### **Actions**

##### **Enhancement:**

- ◆ The Proponent must appoint local contractors and employ local Namibians where possible.
- ◆ If the skills exist locally, employees and contractors must first be sourced from the town, then the region and then nationally.
- ◆ Deviations from this practice must be justified.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Bi-annual summary report based on employee records.

### **2.1.3 Employment**

Continued operations and maintenance of the facility relies on employment. Skilled and unskilled labourers are employed or contracted for various tasks of operations and maintenance. Unskilled labour may be sourced locally while it is expected that skilled contractors within Namibia will be used for specialised work. The presence of the facility therefore contributes to employment creation in the skilled and unskilled labour sector.

**Desired Outcome:** Contribution to the provision of employment to local Namibians.

#### **Actions**

##### **Enhancement:**

- ◆ The Proponent must employ local Namibians where possible.
- ◆ If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.
- ◆ Deviations from this practice must be justified.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Bi-annual summary report based on employee records.

#### **2.1.4 Skills, Technology and Development**

During operations of the facility, training is provided to a portion of the workforce to be able to perform their duties according to the required standards. Skills are transferred to an unskilled workforce for general tasks. Development of people and technology are key to economic development of the town, region and nationally.

**Desired Outcome:** To see an increase in skills of local Namibians, as well as development and technology advancements in the fuel industry.

##### **Actions**

###### **Enhancement:**

- ◆ If the skills exist locally, contractors and employees must first be sourced from the town, region, and then nationally. Deviations from this practice must be justified.
- ◆ Skills development and improvement programs to be made available as identified during performance assessments.
- ◆ Employees to be informed about parameters and requirements for references upon employment.

###### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

###### **Data Sources and Monitoring:**

- ◆ Record should be kept of training provided.
- ◆ Ensure that all training is certified or managerial reference provided (proof provided to the employees) inclusive of training attendance, completion and implementation.
- ◆ Bi-annual summary reports on all training conducted.



### **2.1.5 Demographic Profile and Community Health**

The facility relies on labour for operations. The scale of the project is limited and it is not foreseen that it will create a change in the demographic profile of the local community. Exposure to factors such as communicable disease like HIV/AIDS as well as alcoholism / drug abuse are often associated with the trucking industry. Spills and leaks may present risks to members of the public especially if groundwater is polluted.

**Desired Outcome:** To prevent the in-migration and growth in informal settlements and to prevent the spread of diseases such as HIV/AIDS.

#### **Actions:**

##### **Prevention:**

- ◆ Employ only local people from the area, deviations from this practice should be justified appropriately.
- ◆ Adhere to all municipal by-laws relating to environmental health which includes, but is not limited to sanitation requirements.

##### **Mitigation:**

- ◆ Educational programmes for employees on HIV/AIDs and general upliftment of employees' social status.
- ◆ Appointment of reputable contractors.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Facility inspection sheet for all areas which may present environmental health risks, kept on file.
- ◆ Bi-annual summary report based on educational programmes and training conducted.
- ◆ Bi-annual report and review of employee demographics.

### **2.1.6 Fuel Supply and Truck Stop Facilities**

The new facility will contribute to ensuring a reliable and convenient supply of fuel to the town, local businesses and residents and the transport industry. The facility will provide safe and convenient truck stop facilities to the trucking industry.

**Desired Outcome:** Ensure a secure fuel supply remains available.

#### **Actions**

##### **Mitigation:**

- ◆ Ensure compliance to the petroleum regulations of Namibia which specify adherence to SANS standards for fuel retail facilities.
- ◆ Proper management to ensure constant supply.
- ◆ Record supply problems and take corrective actions.
- ◆ Communicate any fuel shortages and expected delays in supply at a visible location on site.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Record supply problems and corrective actions taken and compile a bi-annual summary report.

### **2.1.7 Traffic**

The presence of the facility will change traffic conditions on the northern outskirts of the town during the construction and operational phases. This may increase the risk of incidents and accidents. Construction activities at the new site may result in temporary traffic impacts as a result of large vehicles accessing the sites for delivery and collection of equipment, machinery, building rubble and waste.

**Desired Outcome:** Minimum impact on traffic and no transport or traffic related incidents.

#### **Actions**

##### **Prevention:**

- ◆ Construct access roads according to Roads Authority approved designs.
- ◆ Erect clear signage regarding access and exit points at the facility.
- ◆ Tanker trucks collecting and delivering fuel should not be allowed to obstruct any traffic.

##### **Mitigation:**

- ◆ If any traffic impacts are expected, traffic management should be performed.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Any complaints received regarding traffic issues should be recorded together with action taken to prevent impacts from repeating itself.
- ◆ A report should be compiled bi-annually of all incidents reported, complaints received, and action taken.

### 2.1.8 Health, Safety and Security

Activities associated with the construction and operational phases rely on human labour and therefore will expose them to health and safety risks. Health and safety risk associated with the construction activities include excavation activities during tank removal and installation, falling from heights and moving vehicles. Similarly, handling of hazardous chemicals (inhalation and carcinogenic effect of some petroleum products), will pose the main risks to employees during the operational phases. Security risks will be related to unauthorized entry, theft and sabotage.

**Desired Outcome:** To prevent injury, health impacts and theft.

#### **Actions**

##### **Prevention:**

- ◆ All health and safety standards specified in the Labour Act should be complied with.
- ◆ Clearly label dangerous and restricted areas as well as dangerous equipment and products, especially during the construction phase.
- ◆ Equipment on site must be locked away or placed in a way that does not encourage criminal activities (e.g. theft).
- ◆ Provide all employees with required and adequate personal protective equipment (PPE).
- ◆ Ensure that all personnel receive adequate training on operation of equipment / handling of hazardous substances.
- ◆ Implementation of maintenance register for all equipment and fuel / hazardous substance storage areas.
- ◆ Selected personnel should be trained in first aid and a first aid kit must be available on site. The contact details of all emergency services must be readily available.
- ◆ Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes: colour coding of pipes, operational, safe work and medical procedures, permits to work, emergency response plans, housekeeping rules, MSDS's and signage requirements (PPE, flammable etc.).
- ◆ Security procedures and proper security measures must be in place to protect workers and clients.
- ◆ Develop emergency response plans for all possible health, safety and security impacts and appoint responsible personnel in key positions to activate and oversee such plans when required.

##### **Mitigation:**

- ◆ For all emergency situations, the appropriate emergency response plan must be implemented as soon as possible in order to minimize the magnitude of impacts or prevent such impacts from developing into more severe impacts.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Any incidents must be recorded with action taken to prevent future occurrences.
- ◆ A report should be compiled bi-annually of all incidents reported. The report should contain dates when training were conducted and when safety equipment and structures were inspected and maintained.

### 2.1.9 Fire

Construction and operational activities may increase the risk of the occurrence of fires. Unleaded petrol is extremely flammable and being a static accumulator may ignite if handled incorrectly. Such a fire pose a threat to nearby businesses and infrastructure. Fires at the new site may spread into the nearby veld and can cause devastating veld fires if not rapidly extinguished. Similarly, a veld fire originating from somewhere else, pose a threat to the Proponent's facility.

**Desired Outcome:** To prevent property damage, possible injury and impacts caused by uncontrolled fires.

#### **Actions:**

##### **Prevention:**

- ◆ A holistic fire protection and prevention plan must be developed for the site and it should specifically take into account flammable products stored on site. This plan must include an emergency response plan, firefighting plan and a spill recovery plan and should have dedicated assigned personnel to oversee their development and implementation.
- ◆ Firefighting equipment must be maintained and regularly serviced.
- ◆ Regular personnel training (firefighting, fire prevention and responsible housekeeping practices).
- ◆ During the construction phase, fires used for cooking or any other purposes, if any, should be restricted to dedicated areas that do not pose risks of fires spreading to the nearby veld.
- ◆ Ensure all chemicals are stored strictly according to MSDS and SANS instructions. This include segregation of incompatible products.
- ◆ Maintain regular site, mechanical and electrical inspections and perform regular maintenance.
- ◆ Clean all spills/leaks without delay and dispose of any contaminated material according to their MSDS requirements and at suitable locations to prevent the accumulation of flammable or explosive products on site.
- ◆ For fuel storage, special note must be taken of the regulations stipulated in sections 47 and 48 of the Petroleum Products and Energy Act, 1990 (Act No. 13 of 1990) and SANS standards for operation and maintenance of the consumer fuel installation should be followed.
- ◆ Maintain a firebreak around the perimeter of the new site.

##### **Mitigation:**

- ◆ For any fire related emergency situation, the appropriate emergency response plan must be implemented as soon as possible in order to minimize the magnitude of impacts or prevent such impacts from developing into more severe impacts.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ A register of all incidents must be maintained on a daily basis. This should include measures taken to ensure that such incidents do not repeat themselves.
- ◆ A report should be compiled bi-annually of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested and training given.

### **2.1.10 Air Quality**

The operational phase release fuel vapours into the air during refuelling of bulk storage tanks as well as at dispensing points. Prolonged exposure may have carcinogenic effects. Construction and future refurbishment/maintenance activities may cause dust where soil surfaces are exposed or earthworks are conducted.

**Desired Outcome:** To prevent health impacts related to reduced air quality.

#### **Actions**

##### **Mitigation:**

- ◆ Employees should be informed about the dangers of fuel vapours.
- ◆ Vent pipes must be properly placed as per SANS requirements.
- ◆ During construction, dust masks should be provided to employees where dust impacts are expected and dust suppression by means of water implemented.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Any complaints received regarding fuel vapours or dust should be recorded with notes on action taken.
- ◆ All information and reporting to be included in a bi-annual report.

### 2.1.11 Noise

Noise pollution may be generated due to heavy and light motor vehicles accessing the site to offload fuel or refuel. Construction and future refurbishment/maintenance activities may result in a temporary increases in noise levels.

**Desired Outcome:** To prevent any nuisance and hearing loss due to noise generated.

#### **Actions**

##### **Prevention:**

- ◆ Follow the Health and Safety Regulations of the Labour Act's guidelines for limits on noise in the workplace and World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999) to prevent hearing impairment and a nuisance at nearby receptors.
- ◆ All machinery must be regularly serviced to ensure minimal noise production.
- ◆ Manage noise caused by clients including loud music.

##### **Mitigation:**

- ◆ Hearing protectors as standard PPE for workers in situations with elevated noise levels.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Health and Safety Regulations of the Labour Act's guidelines for limits on noise in the workplace and World Health Organization (WHO) guidelines on maximum noise levels (Guidelines for Community Noise, 1999).
- ◆ Maintain a complaints register.
- ◆ Bi-annual report on complaints and actions taken to address complaints and prevent future occurrences.

### **2.1.12 Waste production**

Waste is produced during the construction and operational phases. Waste includes hazardous waste associated with the handling of hydrocarbon products. Maintenance waste may include building rubble and discarded equipment contaminated by hydrocarbon products. Contaminated soil and water is considered as hazardous waste. Domestic waste will be generated by the facility and related operations. Waste presents a contamination risk and when not removed regularly may become a fire hazard.

**Desired Outcome:** To reduce the amount of waste produced and prevent pollution and littering.

#### **Actions**

##### **Prevention:**

- ◆ Waste reduction measures should be implemented and all waste that can be re-used/recycled must be kept separate.
- ◆ Ensure adequate waste storage facilities are available.
- ◆ Ensure waste cannot be blown away by wind.
- ◆ Prevent scavenging (human and non-human) of stored waste.

##### **Mitigation:**

- ◆ Waste should be disposed of regularly and at appropriately classified disposal facilities, this includes hazardous material (empty chemical containers, contaminated rugs, paper water and soil).
- ◆ See the MSDS available from suppliers for disposal of contaminated products and empty containers.
- ◆ Liaise with the town council regarding waste and handling of hazardous waste.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.
- ◆ Any complaints received regarding waste should be recorded with notes on action taken.
- ◆ All information and reporting to be included in a bi-annual report.



### 2.1.13 Ecosystem and Biodiversity Impact

The site shows limited impacts as a result of human activity related to the presence of aucton pens of the Proponent. The area earmarked for the fuel facility and truck port is covered by natural vegetation. Such vegetation includes protected species like *Acacia erioloba* (camel thorn) and *Boscia albitrunca* (Shepperd's Tree) which may require removal. Bird nests and animal burrows may also be present. The site is however earmarked for development by the Rehoboth Town Council. Construction and operations may present a pollution risk to the surrounding environment and biophysical features.

**Desired Outcome:** To minimize or avoid pollution of, and impacts on, the ecological environment.

#### **Actions.**

##### **Prevention:**

- ◆ Prior to construction of the new facility, identify protected plant species on site and, where possible, incorporate them into the design of the facility.
- ◆ Prior to land clearing, do a systematic site walkover to, as best as possible, locate and remove any slow moving animals like tortoises and chameleons. If any such animals are removed they should be released northwest of the site and away from the urban areas.
- ◆ For the construction phase, instruct workers to not deliberately injure or kill any animals perceived as dangerous, like snakes, scorpions, reptiles, etc., which may be present on site. Rather encourage reporting of such animals and arrange for the relocation of the animals to safe habitats.
- ◆ Educate all contracted and permanent employees on the value of biodiversity and discourage any form of poaching and/or plant collection in the nearby veld.

##### **Mitigation:**

- ◆ Obtain permits for the removal of any protected plant species on site.
- ◆ Contain construction material and activities (laydown areas) to the site to minimize the impact on surrounding habitats.
- ◆ Mitigation measures related to waste handling and the prevention of groundwater, surface water and soil contamination should limit ecosystem and biodiversity impacts.
- ◆ Prevent scavenging of waste by animals.
- ◆ The establishment of habitats and nesting sites at the facility should be discouraged where possible.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Forestry Act Regulations
- ◆ Any ecologically significant events or sightings to be included in a bi-annual report.

#### **2.1.14 Groundwater, Surface Water and Soil Contamination**

Operations entails the storage and handling of various hydrocarbons (such as fuels and lubricants). Such material may contaminate surface water, soil and groundwater. Contamination may either result from failing storage facilities and reticulation, or spills and leaks associated construction activities and with fuel handling such as overfills and spills.

**Desired Outcome:** To prevent the contamination of water and soil.

##### **Actions**

###### **Prevention:**

- ◆ All construction and or maintenance machines should be maintained to be in a good working condition during operation.
- ◆ Employ drip trays and spill kits during construction when onsite servicing/repairs of equipment are needed.
- ◆ Spill control structures and procedures must be in place according to SANS standards or better and connection of all surfaces where fuel is handled, with an oil water separator.
- ◆ Surfactants (soap) should not be allowed to enter the oil water separator as this will decrease its efficiency.
- ◆ All fuelling should be conducted on surfaces provided for this purpose. E.g. Concrete slabs with regularly maintained seals between slabs.
- ◆ The procedures followed to prevent environmental damage during service and maintenance, and compliance with these procedures, must be audited and corrections made where necessary.
- ◆ Proper training of operators must be conducted on a regular basis (fuel handling, spill detection, spill control).

###### **Mitigation:**

- ◆ Any spillage of more than 200 l must be reported to the Ministry of Mines and Energy.
- ◆ Spill clean-up means must be readily available on site as per the relevant MSDS and all spills must be cleaned up immediately.

###### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

###### **Data Sources and Monitoring:**

- ◆ Daily tank inspections and dips to detect product loss due to leaks as soon as possible.
- ◆ A report should be compiled bi-annually of all spills or leakages reported. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results) with post remediation data (e.g. soil / groundwater hydrocarbon concentrations) and a copy of documentation in which spill was reported to Ministry of Mines and Energy.

### **2.1.15 Visual Impact**

This is an impact that not only affects the aesthetic appearance, but also the integrity of the facility. The general upkeep and maintenance of the facility will not only reduce any negative visual impacts, but also ensure the longevity of the structures and buildings. The new facility will change the character of the environment as one approach the town from the north. The development will however be similar to existing developments along the B1 road in town and is characteristic of typical urban developments.

**Desired Outcome:** To minimise negative aesthetic impacts associated with the facility and prevent lighting from being a visual disturbance.

#### **Actions**

##### **Mitigation:**

- ◆ Regular waste disposal, good housekeeping and routine maintenance on infrastructure will ensure that the longevity of structures are maximised and a low visual impact is maintained.
- ◆ Lighting should be directed towards the facility or downwards and away from residents where possible.
- ◆ Minimum lighting necessary for operations to be used at night. The installation of auto-dimming lights when no movement is detected are desirable.

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ A report should be compiled every bi-annually of all complaints received and actions taken.

### **2.1.16 Impacts on Utilities and Infrastructure**

Any damage caused to existing infrastructure and services supply like roads, water and electricity where present.

**Desired Outcome:** No impact on utilities and infrastructure.

#### **Actions**

##### **Prevention:**

- ◆ Appointing qualified and reputable contractors is essential.
- ◆ The contractor must determine exactly where amenities and pipelines are situated before construction activities commence (utility clearance e.g. ground penetrating radar surveys).
- ◆ Liaison with the suppliers of services is essential.
- ◆ Adhere to restrictions on activities that may occur in servitudes.

##### **Mitigation:**

- ◆ Emergency procedures for corrective action available on file.

##### **Responsible Body:**

- ◆ Proponent
- ◆ Contractors

##### **Data Sources and Monitoring:**

- ◆ A bi-annual report should be compiled of all incidents that occurred and corrective action taken.

### **2.1.17 Archaeological, Heritage and Cultural Impact**

Although unlikely, some artefacts of archaeological or heritage significance may be unearthed during earthworks for construction.

**Desired Outcome:** To preserve any artefacts of archaeological, heritage or cultural significance.

#### **Actions**

##### **Prevention:**

- ◆ Inform all contractors and employees to be vigilant for any extraordinary finds and to take action not to cause any damage.

##### **Mitigation:**

- ◆ If any archaeologically important artefact is found a “chance finds procedure” must be initiated which includes stopping any further work that can cause damage and reporting to superiors and the relevant authorities.
- ◆ For any human remains, the Namibian Police must be informed as a first action.

##### **Responsible Body:**

- ◆ Proponent
- ◆ Contractors

##### **Data Sources and Monitoring:**

- ◆ Compile a bi-annual report of all chance finds, proof of reporting to authorities and actions taken.

### **2.1.18 Cumulative Impact**

Possible cumulative impacts associated with the construction, operational and decommissioning phases include increased habitat impacts, traffic and noise in the area.

**Desired Outcome:** To minimise all cumulative impacts associated with the facility.

#### **Actions**

##### **Mitigation:**

- ◆ Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact.
- ◆ Reviewing bi-annual and annual reports for any new or re-occurring impacts or problems would aid in identifying cumulative impacts and help in planning if the existing mitigations are insufficient

##### **Responsible Body:**

- ◆ Contractors
- ◆ Proponent

##### **Data Sources and Monitoring:**

- ◆ Annual summary report based on all other impacts must be created to give an overall assessment of the impact of the operational phase.

## **2.2 DECOMMISSIONING AND REHABILITATION**

It is not expected that the new facility will be decommissioned during the validity of the ECC. Should decommissioning of the site realise in future, decommissioning will entail the complete removal of all infrastructure related to the facility. Any pollution present on the site must be remediated. The impacts associated with this phase include noise and waste production as structures are dismantled. Noise must be kept within the Health and Safety regulations of the Labour Act and WHO guidelines and waste should be contained and disposed of at an appropriately classified and approved waste facility and not dumped in the surrounding areas. Should decommissioning be considered in future, the EMP will have to be reviewed at the time of decommissioning, to cater for changes made to the site and to implement new guidelines and mitigation measures.

## **3 CONCLUSION**

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The EMP should be used as an on-site reference document for the operations of the facility. Parties responsible for transgressing of the EMP should be held responsible for any rehabilitation that may need to be undertaken. The Proponent could use an in-house Health, Safety, Security and Environment Management System in conjunction with the EMP. All operational personnel must be taught the contents of these documents.

Should the Directorate of Environmental Affairs (DEA) of the MEFT find that the impacts and related mitigation measures, which have been proposed in this report, are acceptable, an environmental clearance certificate may be granted to the Proponent. The environmental clearance certificate issued, based on this document, will render it a legally binding document which should be adhered to.