

**OPERATIONS OF THE MALTAHÖHE SERVICE STATION
UPDATED ENVIRONMENTAL MANAGEMENT PLAN**



Prepared by:



Prepared for:

**MALTAHÖHE SERVICE
STATION CC**

May 2024

Project:	UPDATED ENVIRONMENTAL MANAGEMENT PLAN FOR THE OPERATIONS OF MALTAHÖHE SERVICE STATION
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I _____ acting as a representative of Maltahöhe Service Station hereby approve this environmental management plan. All material information in the possession of the Proponent that reasonably has or may have the potential of influencing any aspect, or the objectivity of, this environmental management plan, was provided to the Geo Pollution Technologies.

Signed at _____ on the ____ day of _____ 2024.

Maltahöhe Service Station

Business Registration/ID No.

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1 INTRODUCTION

In 2020, Maltahöhe Service Station CC (the Proponent) was issued a renewed environmental clearance certificate (ECC) for the continued operations of their fuel retail facility situated in Main Street, Maltahöhe. The ECC was issued based on an environmental impact assessment conducted by Geo Pollution Technologies (Pty) Ltd (Faul et al. 2017). The Proponent now requires another update of their environmental management plan (EMP) to allow for renewal of their ECC to ensure the continued operations of their fuel retail facility.

2 ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS

To protect the environment and achieve sustainable development, all projects, plans, programmes and policies deemed to have adverse impacts on the environment require an environmental assessment, as per the Namibian legislation. The legislation and standards provided in Table 2-1 to Table 2-3 govern the environmental assessment process in Namibia and/or are relevant to the facility.

Table 2-1 Namibian law applicable to the consumer fuel installation

Law	Key Aspects
The Namibian Constitution	<ul style="list-style-type: none"> ◆ Promotes the welfare of people. ◆ Incorporates a high level of environmental protection. ◆ Incorporates international agreements as part of Namibian law.
Environmental Management Act Act No. 7 of 2007, Government Notice No. 232 of 2007	<ul style="list-style-type: none"> ◆ Defines the environment. ◆ Promotes sustainable management of the environment and the use of natural resources. ◆ Provides a process of assessment and control of activities with possible significant effects on the environment.
Environmental Management Act Regulations Government Notice No. 28-30 of 2012	<ul style="list-style-type: none"> ◆ Commencement of the Environmental Management Act. ◆ Listed activities that requires an environmental clearance certificate. ◆ Provides Environmental Impact Assessment Regulations.
Petroleum Products and Energy Act Act No. 13 of 1990, Government Notice No. 45 of 1990	<ul style="list-style-type: none"> ◆ Regulates petroleum industry. ◆ Makes provision for impact assessment. ◆ Petroleum Products Regulations (Government Notice No. 155 of 2000). ◆ Prescribes South African National Standards (SANS) or equivalents for construction, operation and decommissioning of petroleum facilities (refer to Government Notice No. 21 of 2002).
Water Resources Management Act Act No. 11 of 2013	<ul style="list-style-type: none"> ◆ Provides for management, protection, development, use and conservation of water resources. ◆ Prevention of water pollution and assignment of liability.
Local Authorities Act Act No. 23 of 1992, Government Notice No. 116 of 1992	<ul style="list-style-type: none"> ◆ Defines the powers, duties and functions of local authority councils. ◆ Regulates discharges into sewers.

Law	Key Aspects
Public and Environmental Health Act Act No. 1 of 2015, Government Notice No. 86 of 2015	<ul style="list-style-type: none"> ◆ Provides a framework for a structured more uniform public and environmental health system, and for incidental matters. ◆ Deals with Integrated Waste Management including waste collection disposal and recycling; waste generation and storage; and sanitation.
Labour Act Act No 11 of 2007, Government Notice No. 236 of 2007	<ul style="list-style-type: none"> ◆ Provides for Labour Law and the protection and safety of employees. ◆ Labour Act, 1992: Regulations relating to the health and safety of employees at work (Government Notice No. 156 of 1997).
Atmospheric Pollution Prevention Ordinance Ordinance No. 11 of 1976	<ul style="list-style-type: none"> ◆ Governs the control of noxious or offensive gases. ◆ Prohibits scheduled process without a registration certificate in a controlled area. ◆ Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.
Hazardous Substances Ordinance Ordinance No. 14 of 1974	<ul style="list-style-type: none"> ◆ Applies to the manufacture, sale, use, disposal and dumping of hazardous substances as well as their import and export. ◆ Aims to prevent hazardous substances from causing injury, ill-health or the death of human beings.
Pollution Control and Waste Management Bill (draft document)	<ul style="list-style-type: none"> ◆ Not in force yet. ◆ Provides for prevention and control of pollution and waste. ◆ Provides for procedures to be followed for licence applications.

Table 2-2 Relevant multilateral environmental agreements for Namibia and the development

Agreement	Key Aspects
Stockholm Declaration on the Human Environment, Stockholm 1972.	<ul style="list-style-type: none"> ◆ Recognizes the need for a common outlook and common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment.
1985 Vienna Convention for the Protection of the Ozone Layer	<ul style="list-style-type: none"> ◆ Aims to protect human health and the environment against adverse effects from modification of the Ozone Layer are considered. ◆ Adopted to regulate levels of greenhouse gas concentration in the atmosphere.
United Nations Framework Convention on Climate Change (UNFCCC)	<ul style="list-style-type: none"> ◆ The Convention recognises that developing countries should be accorded appropriate assistance to enable them to fulfil the terms of the Convention.
Convention on Biological Diversity, Rio de Janeiro, 1992	<ul style="list-style-type: none"> ◆ Under article 14 of The Convention, EIAs must be conducted for projects that may negatively affect biological diversity.

Table 2-3 Standards or codes of practise

Standard or Code	Key Aspects
South African National Standards (SANS)	<ul style="list-style-type: none">◆ The Petroleum Products and Energy Act prescribes SANS standards for the construction, operations and demolition of petroleum facilities.◆ SANS 10089-3:2010 is specifically aimed at storage and distribution of petroleum products at fuel retail facilities and consumer installations.<ul style="list-style-type: none">○ Provide requirements for spill control infrastructure.

3 OBJECTIVES OF THE EMP

The EMP provides management options to ensure potential impacts from operational activities 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 EMP acts as a stand-alone document, which can be used during the operational phases as well as the decommissioning phases of any activity or development. All personnel taking part in the operations of this facility should be made aware of the contents of the EMP, so as to plan the relevant activities accordingly and in an environmentally sound manner.

The objectives of the EMP are:

- ◆ to include all components of the various activities related to the facility;
- ◆ to prescribe the best practicable control methods to lessen the environmental impacts associated with the operations of 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.

Maltahöhe Service Station CC could implement the International Standards of Operation (ISO) 14001 or similar environmental management system (EMS) for its operations. An EMS is an internationally recognized and certified management system that will ensure ongoing incorporation of environmental constraints. At the heart of an EMS is the concept of continual improvement of environmental performance with resulting increases in operational efficiency, financial savings and reduction in environmental, health and safety risks. An effective includes the following elements:

- ◆ A stated environmental policy which sets the desired level of environmental performance;
- ◆ An environmental legal register;
- ◆ An institutional structure which sets out the responsibility, authority, lines of communication and resources needed to implement the EMS;
- ◆ Identification of environmental, safety and health training needs;
- ◆ An environmental program(s) stipulating environmental objectives and targets to be met, and work instructions and controls to be applied in order to achieve compliance with the environmental policy; and
- ◆ Periodic (internal and external) audits and reviews of environmental performance and the effectiveness of the EMS;
- ◆ An EMP.

4 THE IMPLEMENTATION OF THE EMP

Tables 1 to 3 outline the management of the environmental elements that may be affected by the planning, operational and decommissioning phases of the fuel retail facility. The EMP is a living document that must be prepared in detail, and regularly updated, by the Proponent as the project progress and evolve. The tables below act as a guideline for the EMP to be established by the Proponent. Impacts addressed and mitigation measures proposed are seen as minimum requirements

which have to be elaborated on. Delegation of mitigation and reporting activities should be determined by the Proponent and included in the EMP.

The EMP and ECC must be communicated to the site managers. All monitoring results must be reported on as indicated. These are important for any future renewals of the environmental clearance certificate and must be submitted to the Ministry of Environment, Forestry and Tourism on a bi-annual basis.

Table 4-1 Planning for operations and future decommissioning of the project

Activity	Objective	Action	Timing	Proof of Compliance	Responsible Body
Compliance	To comply with all legal requirements for the operations of the facility in Namibia.	<p>Apply for the necessary permits from the various ministries, local authorities and any other bodies that governs the operations of the proposed activity.</p> <p>Finalise negotiations and resolve any outstanding issues, if any, over the allocation of user rights and zoning of the property on which the proposed activity will be located.</p>	Continuously during the operational phase	All contracts, permits, certificates and other legal documents on file.	Proponent
Appointments	To appoint reputable contractors and operational personnel and establish the EMP, a legal requirement that forms part of the contract with the contractor and employees.	<p>Appoint a contractor and employees and enter into an agreement which includes the EMP.</p> <p>Ensure that the contents of the EMP are understood by the contractor, sub-contractors, employees and all personnel who will be present on site.</p>	Continuously during the operational phase	Contracts on file	Proponent
Management	Establish a management system to implement and monitor Health, Safety and Environment.	<p>Make provisions to have a Health, Safety and Environmental Coordinator to implement the EMP and oversee occupational health and safety as well as general environmental related compliance at the site.</p> <p>Have the following emergency plans, equipment and personnel in place to deal with all emergencies:</p> <p>Risk Management / Mitigation / Environmental Management Plan/ Emergency Response Plan and HSE Manuals</p> <p>Adequate protection and indemnity insurance cover for incidents;</p>	Continuously during the operational phase	<p>Documentation on file</p> <p>Personal Protection Equipment (PPE) on site</p> <p>Signage related to restricted areas, dangerous areas, and PPE requirements on site</p> <p>Emergency response material on site</p>	Proponent

Activity	Objective	Action	Timing	Proof of Compliance	Responsible Body
		Comply with the provisions of all relevant safety standards; Procedures, equipment and materials required for emergencies.			
Restoration Fund/Insurance	To establish a fund/insurance for future environmental restoration or pollution remediation if ever required.	To establish a fund for future ecological restoration of the project site should project activities cease and the site is decommissioned and/or when environmental restoration or pollution remediation is required.	Continuously during the operational phase	Financial statements/proof of restoration fund/insurance	Proponent; Independent Specialist Consultant
Reporting	To establish a reporting system to report on monitoring aspects of operations and decommissioning as outlined in the EMP.	Establish a reporting system to report on aspects of operations and decommissioning as outlined in the EMP. Keep monitoring reports on file for bi-annual submission to the Ministry of Environment, Forestry and Tourism in support of ECC renewal applications. This is a requirement by the Ministry.	Continuously during the operational phase	Monitoring Reports	Proponent; Contractor
Environmental Clearance Renewal	To renew the environmental clearance certificate every three years.	Appoint a specialist environmental consultant to update the EIA and EMP and apply for renewal of the environmental clearance certificate.	Prior to expiry of environmental clearance certificate	Renewed environmental clearance certificate	Proponent; Independent Specialist Consultant

Table 4-2 The operational phase

Criteria	Nature	Mitigation	Monitoring	Responsible Body
Employment	<p>The proponent must employ local Namibians where possible.</p> <p>If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.</p> <p>Deviations from this practice must be justified</p>	<p>The proponent must employ local Namibians where possible.</p> <p>If the skills exist locally, employees must first be sourced from the town, then the region and then nationally.</p> <p>Deviations from this practice must be justified</p>	Bi-annual summary report based on employee records.	Proponent
Skills development and technology transfer to Maltahöhe and subsequent promotion of economic development	<p>People need skills to perform their jobs. Development of people and technology are key to economic development.</p>	<p>Skills development and improvement programs to be made available to employees as identified during performance assessments.</p> <p>Employees to be informed about parameters and requirements for references upon employment.</p>	Bi-annual summary report of all training and skills development.	Proponent
Demographic Profile and Community Health	<p>New and existing developments attract people who seek work. This in turn can increase the extent of informal settlements and its associated problems. The increased trucking and distribution of goods to Maltahöhe could contribute to the spread of HIV / AIDS. It is possible that these factors can affect property prices in the area depending on the proximity to a residential area.</p>	<p>Training of local people should be considered from the start. These measures will reduce the influx of newcomers to the town and thereby reduce growth in the informal settlement and maintain property prices.</p> <p>Implementing of an educational program on HIV/AIDS for all the staff is imperative.</p>	Bi-annual summary report of proof of appointment of local employees and implementation of educational programmes.	Proponent
Secure Fuel Supply	<p>The continued operations of the facility secures fuel supply to the residents of Maltahöhe, the surrounding agricultural sector and tourism industry.</p>	<p>Regular tank dips and fuel volume reconciliation to ensure fuel is ordered before it is depleted.</p> <p>Plan in advance for peak tourist seasons and holidays when the demand for fuel increase.</p>	Fuel volume reconciliations on file.	Proponent
Traffic	<p>Traffic impacts especially during periods of fuel delivery</p>	<p>Tanker trucks delivering fuel should not be allowed to obstruct any traffic in Main Street (C19) or the surrounding</p>	Any complaints received regarding traffic issues	Proponent

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		<p>streets.</p> <p>If any traffic impacts is expected, traffic management should be performed.</p> <p>The placement of signs to warn and direct traffic will mitigate traffic impacts.</p>	<p>should be recorded together with action taken to prevent impacts from repeating itself.</p> <p>A bi-annual report should be compiled of all incidents reported, complaints received and action taken.</p>	
Health, Safety & Security	<p>Risks include work related injuries or exposures to harmful products, theft and sabotage.</p> <p>Fuel, especially unleaded petrol, is carcinogenic and dermal contact and breathing of fumes should be prevented.</p>	<p>Implement and maintain an integrated health and safety management system to act as a monitoring and mitigating tool.</p> <p>Comply with all health and safety standards as specified in the Labour Act and related legislation.</p> <p>Clearly label dangerous and restricted areas as well as dangerous equipment and products.</p> <p>Lock away or store all equipment and goods in a manner suitable to discourage criminal activities (e.g. theft).</p> <p>Provide all employees with required and adequate personal protective equipment (PPE) where required.</p> <p>Ensure that all personnel receive adequate training on the operational procedures and the handling of hazardous substances.</p> <p>Train selected personnel in first aid and ensure first aid kits are available.</p> <p>The contact details of all emergency services must be readily available.</p> <p>Apply and adhere to all industry specific health and safety procedures and regulations applicable to the handling of hazardous substances.</p> <p>Treat all minor work related injuries immediately and obtain professional medical treatment if required.</p> <p>Assess any health and safety problems and implement</p>	<p>A bi-annual report should be compiled of all incidents reported. The report should contain dates when training was conducted and when safety equipment were inspected and maintained.</p>	Proponent

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		corrective action to prevent future occurrences.		
Noise	Noise pollution will exist due to heavy and light motor vehicles accessing the site to offload fuel or refuel.	The site is situated within a mixed land use area and it is important to refer and adhere to the noise limits for workers in the Health and Safety Regulations of the Labour Act and/or the World Health Organisation regulations pertaining to noise (Guidelines for Community Noise, 1999).	Any complaints received regarding excessive noise should be recorded with notes on action taken. All complaints and additional data, if available, to be compiled in a bi-annual report.	Proponent
Fire Hazards	Products kept on site are flammable and therefore a fire risk exists. Unleaded petrol is a static accumulator and can ignite if not handled correctly.	<p>All fire precautions and fire control at the site must be in accordance with relevant SANS regulations or better. Firefighting measures as per the Material Safety Data Sheets of the products should be adhered to.</p> <p>All operational personnel must be trained in the correct handling of fuel, especially unleaded petrol, and correct refuelling techniques. This includes only filling approved containers with fuel and earthing of such containers to prevent static build-up and ignition of unleaded petrol.</p> <p>In addition to this, all personnel have to be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials including rubbish and dry vegetation. Regular inspections should be carried out to check for these materials at the site.</p> <p>A holistic fire protection and prevention plan is needed. This plan must include an emergency response plan, firefighting plan and spill recovery plan.</p> <p>Experience has shown that the best chance to rapidly put out a major fire is in the first 5 minutes. It is important to recognise that a responsive fire prevention plan does not solely include the availability of firefighting equipment, but more importantly, it involves premeditated measures and activities to timeously prevent, curb and avoid conditions that may result in fires. An integrated fire</p>	A bi-annual report should be compiled of all incidents reported. The report should contain dates when fire drills were conducted and when fire equipment was tested.	Proponent

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		<p>prevention plan should be drafted. 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).</p>		
Waste Production	<p>Waste can be of domestic origin or hazardous waste that include contaminated materials such as packaging materials, contaminated soil, etc.</p>	<p>Waste should be disposed of regularly and at appropriate disposal facilities.</p> <p>Products that can be re-used or re-cycled should be kept separate and treated as such.</p> <p>Due to the nature of some hazardous materials they should be disposed of appropriately and at an appropriately classified waste disposal facility. See the material safety data sheets available from suppliers if the user is not sure how to dispose of the substance.</p> <p>The oil water separator should be cleaned regularly and waste disposed of at a suitably classified hazardous waste disposal facility. No surfactants (soap) should be allowed to enter the separator as it will reduce its ability to separate the hydrocarbons from water.</p> <p>Liaise with the village council regarding waste and handling of hazardous waste.</p>	<p>A register of hazardous waste disposal should be kept. This should include type of waste, volume as well as disposal method/facility.</p> <p>Any complaints received regarding waste should be recorded with notes on action taken.</p> <p>All data to be compiled in a bi-annual report.</p>	Proponent
Groundwater, Surface Water and Soil Contamination	<p>Porous surface substrate can allow unwanted hazardous and ecologically detrimental substances to seep down to the water table.</p>	<p>The following measures must be employed to prevent spillage into surface water drainage channels and groundwater sources:-</p> <ul style="list-style-type: none"> ◆ Spill control structures and cleaning 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. ◆ The oil water separator should be cleaned regularly and waste disposed of at a suitably classified hazardous waste disposal facility. No surfactants (soap) should be allowed to enter the separator as it will reduce its ability to separate the hydrocarbons from water. ◆ All fuelling should be conducted on surfaces provided for this purpose. E.g. concrete slabs with regularly 	<p>If a large spill has occurred or leakage is expected, samples must be taken from monitoring holes and analysed for any hydrocarbon pollutants present.</p> <p>A bi-annual report should be compiled of all spills or leakages reported. The report should contain the following information:</p> <ul style="list-style-type: none"> ◆ date and duration of spill 	Proponent; Independent Specialist Consultant

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		<p>maintained seals between slabs.</p> <ul style="list-style-type: none"> ◆ Proper training of operators must be conducted on a regular basis. ◆ Any spillage of more than 200 l must be reported to the Ministry of Mines and Energy and remediation instituted. 	<ul style="list-style-type: none"> ◆ product spilled ◆ volume of spill ◆ remedial action taken ◆ Comparison of pre-exposure baseline data with post remediation data (e.g. soil hydrocarbon concentrations) ◆ Copy of documentation in which spill was reported to Ministry of Mines and Energy 	
Visual Impact	This is an impact that not only affects the aesthetic appearance, but also the integrity of the site	Regular waste disposal and routine maintenance on infrastructure will ensure that the longevity of structures is maximised and a low visual impact is maintained. However, it is important that the real integrity of the structures is considered in the long term and not just appearances.	A bi-annual report should be compiled of all complaints reported.	Proponent
Cumulative Impact	Possible cumulative impacts associated with the operational phase include increased risk of groundwater and soil contamination which can lead to the pollution of surrounding water sources. Increased traffic in the area will have a cumulative impact on traffic flow on Main Street (C19).	Addressing each of the individual impacts as discussed and recommended in the EMP would reduce the cumulative impact. Reviewing biannual 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.	Bi-annual reports based on all other impacts must be reviewed to assess the overall impact of the operational phase and to implement corrective action where necessary.	Proponent

Table 4-3 Decommissioning phase

Criteria	Nature	Mitigation	Monitoring	Responsible Body
Waste Production	<p>Upon decommissioning waste will be produced in the form of building rubble, obsolete equipment and structures, obsolete or residual products and equipment or structures that can be used elsewhere or sold as scrap.</p> <p>Soil polluted by hydrocarbons must be treated as hazardous waste.</p>	<p>To reduce the amount of waste all re-usable pipelines, pumps, tanks, valves and other equipment must be removed to another site owned by the proponent or sold.</p> <p>Those items that can not be used again must be scrapped in the appropriate manner. By law storage tanks may not be sold, but must be scrapped by approved recyclers.</p> <p>Upon demolition of the buildings and concrete the rubble must be removed from the property and taken to an approved dumpsite designated by the Maltahöhe Village Council.</p> <p>Rehabilitation if necessary are to be done using funds designated for the purpose.</p>	<p>Regular visual inspection.</p> <p>A register of waste produced and disposal methods should be maintained.</p>	Proponent; Contractor
Ecological Impact	<p>Operations spanning many years may create new habitat for fauna and flora. Upon decommissioning these habitats will be destroyed.</p>	<p>The proponent would have to ensure that no new habitat is created for flora and fauna. Before decommissioning the HSE would need to inspect every structural facility to ensure that the dismantling and removal of any structure would not affect any organism that has become dependent on those structures for survival, shelter or breeding.</p> <p>Where new habitats were created, that is now occupied by fauna or flora, the proponent must contact the Ministry of Environment, Forestry and Tourism (MEFT) or other appropriate organizations to establish the conservation status of it.</p> <p>The possibility of relocating the fauna or flora must be investigated and executed. Should the species be listed as vulnerable to extinction, or worse, a meeting should be held with MEFT in order to determine the appropriate handling of the situation.</p>	<p>A report should be compiled of any fauna and flora that established itself on the premises. The report should include all actions taken to relocate or deal with the situation.</p>	Proponent; Contractor
Employment	<p>Decommissioning of the facility may lead to retrenchments or re-location of staff no longer required.</p>	<p>Plan in advance for meeting the Labour Acts requirements for retrenching of staff if required.</p> <p>Where possible staff can be relocated to another facility or town where business continues in the same way.</p>	<p>During normal operations of the facility, prepare appropriate plans for handling of employees should the facility be decommissioned. This</p>	Proponent

Criteria	Nature	Mitigation	Monitoring	Responsible Body
			should include budgeting for retrenchments and possible alternative positions elsewhere.	
Dust	Dust will be generated during the decommissioning phase and might be aggravated during periods of strong winds.	It is recommended that regular dust suppression be included in the decommissioning phase, when dust becomes an issue. Personnel should be issued with dust masks for health and safety reasons.	Regular visual inspection. A complaints register must be maintained, in which any complaints from the community must be logged. Complaints must be investigated and, if appropriate, acted upon.	Proponent; Contractor
Noise	Noise pollution will exist due to heavy vehicles accessing the site to collect rubble from demolished building materials. Cranes may be erected for removing the huge storage tanks. Hammers, diggers and drills will be used.	The site is situated within a mixed land use area and it is important to refer and adhere to the noise limits for workers in the Health and Safety Regulations of the Labour Act and/or the World Health Organisation regulations pertaining to noise (Guidelines for Community Noise, 1999). All personnel must be issued with hearing protectors and neighbours must be notified of the time and duration of decommissioning. Notice of the start of the decommissioning should be given to the local authorities with an invitation to give feedback at any time with regards the noise impact.	A complaints register must be maintained, in which any complaints from the community must be logged. Complaints must be investigated and, if appropriate, acted upon.	Proponent; Public Relations Personnel; Contractor.
Visual Impact	This is an impact that affects the aesthetic appearance	Visual impact could pose one of the most significant impacts. Visual impacts could be limited through keeping all decommissioned areas clean and orderly at all times. Good housekeeping also reduces the risk of injuries. Notice of the start of the decommissioning should be given to the local authorities with an invitation to give feedback at any time with regards the visual impact.	A complaints register must be maintained, in which any complaints from the community must be logged. Complaints must be investigated and, if appropriate, acted upon.	Proponent; Contractor
Groundwater, Surface Water and Soil Contamination	Porous surface substrate can allow unwanted hazardous and ecologically detrimental substances to seep down to the water table.	All precautions are to be taken to prevent contamination of the soil as this could enter the ecosystem. Leakages from vehicles might occur especially if they are serviced on site. Care must be taken to avoid contamination of soil and groundwater. Groundwater might spread pollutants to	Report form for all spills or leaks is to be completed by Contractor and submitted to the Maltahöhe Village Council environmental	Proponent; Contractor

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		<p>neighbouring receptors and may create an impact on underground utilities (i.e. fresh water supply to buildings, sewerage system). Pollutants in the soil and building rubble must be transported away from the site to an approved, appropriately classified waste disposal site.</p> <p>Confirm MSDS information for any remaining fuels, oils or lubricants that must be 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>division and/or Ministry of Mines and Energy.</p> <p>A baseline study must be carried out after the decommissioning. This is to assess the condition of soil substrate and any groundwater present. Comparisons with previous conditions survey data is to be made and any discrepancies must be addressed before the site can be signed over.</p>	
Health, Safety and Security	<p>During the decommissioning phase similar risks to human beings as with previous phases will be present. Once the tanks and pipelines have been emptied completely of their contents residual amounts of fuel might exist. All other risks associated with demolitions must be considered.</p>	<p>Maintain the integrated health and safety management system established during the operational phase.</p> <p>Continue to comply with all health and safety standards as specified in the Labour Act and related legislation.</p> <p>Clearly label dangerous and restricted areas as well as dangerous equipment and products.</p> <p>Lock away or store all equipment and goods in a manner suitable to discourage criminal activities (e.g. theft).</p> <p>Provide all employees with required and adequate personal protective equipment (PPE) where required.</p> <p>Ensure that all personnel receive adequate training on the demolition procedures and the handling of hazardous substances.</p> <p>Train selected personnel in first aid and ensure first aid kits are available.</p> <p>The contact details of all emergency services must be readily available.</p> <p>Apply and adhere to all industry specific health and safety procedures and regulations applicable to the handling of</p>	<p>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 it self.</p>	<p>Proponent; Contractor</p>

Criteria	Nature	Mitigation	Monitoring	Responsible Body
		<p>hazardous substances.</p> <p>Treat all minor work related injuries immediately and obtain professional medical treatment if required.</p> <p>Assess any health and safety problems and implement corrective action to prevent future occurrences.</p>		
<p>Fire and Explosion Hazard</p>	<p>Residual hydrocarbons could be present and might pose a risk to the teams dismantling the various structures. Fire and/or explosion events are still possible.</p>	<p>Various international occupational health and safety performances should be consulted for specific regulations regarding the decommissioning of the facility to ensure all risks are mitigated. All relevant regulations and precautions should be in place as it was during the operational phase. In addition to this, all personnel have to be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials including rubbish, dry vegetation, and hydrocarbon-soaked soil from the vicinity of the fuel storage facility.</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>All fire precautions and fire control at the fuel storage facility must be in accordance with SANS, or better. The holistic fire protection and prevention plan should still be utilised.</p> <p>Experience has shown that the best chance to rapidly put out a major fire is in the first 5 minutes. It is important to recognise that a responsive fire prevention plan does not solely include the availability of fire fighting equipment, but more importantly, it involves premeditated measures and activities to timeously prevent, curb and avoid conditions that may result in fires.</p>	<p>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 it self.</p>	<p>Proponent; Contractor</p>

5 CONCLUSIONS

The EMP, if properly implemented, will ensure adverse impacts on the environment are continually mitigated and prevented. Where impacts occur, immediate action must be taken to reduce the escalation of effects associated with these impacts. To ensure the relevance of this document to the specific stage of project, it needs to be reviewed throughout all phases.

The EMP should continue to be used as an on-site reference document during all phases of the existing facility, and internal auditing should take place in order to determine compliance with the EMP. Parties responsible for transgression 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 updated documents.

Monitoring reports must be submitted to the Ministry of Environment, Forestry and Tourism in line with the ECC conditions to allow for future renewal applications for the ECC.

6 REFERENCES

Faul A, Botha P, Short S; 2017 August; Maltahöhe Service Station Environmental Impact Assessment Scoping Report