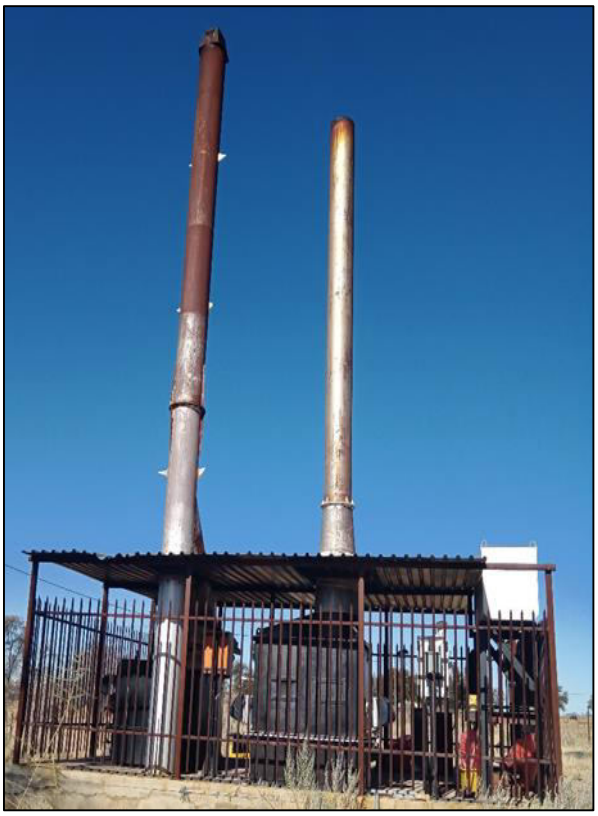
ENVIRONMENTAL MANAGEMENT PLAN (EMP)



Operation and Management of Existing Incinerators at Farm Seeis, Portion B (Windhoek Rural) in Khomas Region

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TITLE PAGE

TITLE	ENVIRONMENTAL MANAGEMENT PLAN FOR THE OPERATION AND MANAGEMENT OF EXISTING INCINERATORS AT FARM SEEIS PORTION B, KHOMAS REGION.
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ABBREVIATIONS

BID	Background Information Document
CC	Close Corporation
DEA	Directorate of Environmental Affairs
EA	Environmental Assessment
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
ECO	Environmental Compliance Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No.7 Of 2007
EMP	Environmental Management Plan
GPS	Global Positioning System
km	Kilometre
MEFT	Ministry of Environment, Forestry and Tourism
MoHSS	Ministry of Health and Social Services
NWMP	National Waste Management Policy
PPE	Personal Protective Equipment
ToR	Terms of Reference

DEFINITIONS

Alternatives: A possible course of action, in place of another, that would meet the same purpose and need but which would avoid or minimize negative impacts or enhance project benefits. These can include alternative locations/sites, routes, layouts, processes, designs, schedules and/or inputs. The "no-go" alternative constitutes the 'without project' option and provides a benchmark against which to evaluate changes; development should result in net benefit to society and should avoid undesirable negative impacts.

Assessment: The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.

Competent Authority: Means a body or person empowered under the local authorities act or Environmental Management Act to enforce the rule of law.

Construction: Means the building, erection or modification of a facility, structure or infrastructure that is necessary for the undertaking of an activity, including the modification, alteration, upgrading or decommissioning of such facility, structure or infrastructure.

Cumulative Impacts: Relative to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

Disposal: The collection, processing, and recycling or deposition of the waste materials of human society. Waste is categorised by source and composition. Generally, waste materials are either liquid or solid in form, and their components may be either hazardous or inert in their effects on health and the environment. The term *waste* applies to solid waste, sewage (wastewater), hazardous waste, and electronic_waste.

Environment: As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human

environment insofar as it represents archaeological, aesthetic, cultural, historic, economic; and/or social values".

Environmental Clearance Certificate (ECC): A certificate which allows a listed activity to go ahead. The certificate means that the Ministry of Environment, Forestry and Tourism is content that the activity in question will have minimal or zero negative impacts on the environment.

Environmental Impact Assessment (EIA): An environmental decision support tool, which provides information on the likely impacts of development projects to those who take the decision as to whether the project should be authorised. The purpose of an EIA is to determine the potential environmental, social, and health effects of a proposed development, so that those who take the decisions in developing the project and in authorising the project are informed about the likely consequences of their decisions before they take those decisions and are thereby more accountable. It is intended to facilitate informed and transparent decision-making while seeking to avoid, reduce or mitigate potential adverse impacts through the consideration of alternative options, sites or processes.

Environmental Management Plan (EMP): A working and legal binding document on environmental and socioeconomic mitigation measures, which must be implemented by several responsible parties during all the phases of the proposed project.

Environmental Management System (EMS): An Environment Management System, or EMS, is a comprehensive approach to managing environmental issues, integrating environment-oriented thinking into every aspect of business management. An EMS ensures environmental considerations are a priority, along with other concerns such as costs, product quality, investments, PR productivity and strategic planning. An EMS generally makes a positive impact on a company's bottom line. It increases effectiveness and centres on customer needs and marketplace conditions, improving both the company's financial and environmental performance. By using an EMS to convert environmental problems into commercial opportunities, companies become more economical.

Evaluation: Means the process of ascertaining the relative importance or significance of information, the light of people's values, preference and judgements in order to make a decision.

Hazard: Anything that has the potential to cause damage to life, property and/or the environment. The danger of a certain material or connection is continual; it would present the same danger wherever it was existing.

Impact: Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.

Incineration: The process of burning hazardous materials at temperatures high enough to destroy contaminants. Incineration is conducted in an "incinerator," a type of furnace intended for burning hazardous materials in a combustion chamber. Many different types of hazardous materials can be treated by incineration, including soil, sludge, liquids, and gases. It destroys many types of harmful chemicals, such as solvents, PCBs (polychlorinated biphenyls), and pesticides.

Integrated Waste Management: Concept of employing several waste control and disposal methods such as source reduction, recycling, reuse, incineration and land filling to minimise the environmental impacts.

Interested and Affected Party (IAP): Any person, group of persons or organisation interested in, or affected by an activity; and any organ of state that may have jurisdiction over any aspect of the activity.

Mitigate: The execution of practical measures to reduce adverse impacts.

Pollution: The direct or indirect introduction of something which can harm people, property, the natural environment into the air, water or land. Pollution may be caused by substances, vibrations, heat, radiation or noise.

Proponent: Any person who has submitted or intends to submit an application for an authorisation, as legislated by the Environmental Management Act no. 7 of 2007, to undertake an activity or activities identified as a listed activity by the Ministry of Environment, Forestry & Tourism.

Public: Citizens who have diverse cultural, educational, political and socio-economic characteristics. The public is not a consistent and joined group of people with a set of agreed common interests and goals. There are a number of

publics, some of whom may emerge at any time during the process depending on their particular concerns and the issues involved.

Scoping Process: Procedure of identifying issues that will be applicable for consideration of the application; the potential environmental impacts of the proposed activity; and alternatives to the proposed activity that are feasible and reasonable.

Significant Effect/Impact: Means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

Stakeholder Engagement: The process of meeting between stakeholders (the proponent, authorities and IAPs) during the planning, assessment, implementation and/or management of proposals or activities. The level of stakeholder engagement differs dependent on the nature of the proposal or activity as well as the level of commitment by stakeholders to the process.

Stakeholders: A sub-group of the public whose interests may be positively or negatively affected by a proposal or activity and/or who are worried with a proposal or activity and its consequences. The term includes the Proponent, authorities (both the lead authority and other authorities); and all interested and affected parties (IAPs). The principle that environmental advisors and stakeholder engagement practitioners should be independent and impartial excludes these groups from being considered stakeholders.

Sustainable Development: "Improvement/development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs and aspirations" – the definition of the World Commission on Environment and Development (1987). "Improving the quality of human life while living within the carrying capacity of supporting ecosystems".

1. INTRODUCTION

1.1 Project Overview

The Proponent, Seeis Incineration Services CC is a registered incineration company owned by Healthcare Practitioners specializing as Veterinarian Doctor/Surgeon(s); offering incineration and related services. Farm Seeis (Portion B) is approximately 57km outside Windhoek (Windhoek Rural) in Khomas Region; on the B6 road leading to the town of Gobabis.

The Proponent, has been using the two (2) incinerators to burn animal carcasses and other wastes for over eight (8) years now. The two incinerators are situated at Farm Seeis, and requires an Environmental Clearance Certificate for this purpose. Incineration is the thermal destruction of carcasses to ashes by auxiliary fuel such as propane, diesel or natural gas.

This proposed activity falls under the listed activities in terms of the Environmental Management Act (EMA). The use of incinerators requires an Environmental Clearance Certificate (ECC) to be issued by the competent authority to the Proponent, in terms of the Environmental Management Act No.7 of 2007 and its EIA regulations of 2012. As it appears under listed activities as below:

"2. WASTE MANAGEMENT, TREAMENT, HANDLING AND DISPOSAL ACTIVITIES
2.1 The construction of facilities for waste sites, treatment of waste and disposal of waste.
2.2 Any activity entailing a scheduled process referred to in the Atmospheric Pollution Prevention Ordinance,
2.3 The import, processing, use and recycling, temporary storage, transit or export of waste."

In the National Waste Management Policy of Namibia section 2.5 states that *"To effectively manage waste and reduce the risks to both healthcare workers and the community, new technologies of managing wastes are recommended. Namibia should progressively aim to adopt the newer technologies if resources do permit."* This policy furthermore states that Provision of waste management services shall be affordable to all citizens in Namibia. This is an additional factor that needs to be considered.

This Document is piloted to briefly outline possible impacts that the use of the incinerators have on the environment, socio-economic and all stakeholders involved.

Animal mortality losses are a normal part of livestock and poultry production facilities which cannot be avoided. Producers may have losses due to a number of reasons such as diseases, accidents, inter-animal competition, etc. Carcass abandonment is not considered an acceptable disposal practice, mortality management is important and should be put in good practice at all times.

Constant engagement with residents of Farm Seeis and the surrounding community shall be undertaken by the proponent, to detect any concerns or issues, and to ensure that appropriate mitigation and management measures are further established at all times.

The Environment Management Plan (EMP) is a plan established to make sure that all required measures are identified and executed in order to safeguard the environment and comply with environmental legislation. Preparation of the EMP is required for formulation, implementation and monitoring of environmental protection measures during and after commissioning of projects. The plans should specify the particulars as to how different measures have been or are proposed to be taken as may be required.

The Environmental Management Plan (EMP) is an action plan aiming to control contamination at the cause level to the possible range with the accessible and reasonable technology followed by usage measures before they are discharged. It incorporates the alleviation/mitigation measures that are proposed in order to bring into line the economic growth of the study area with the environmental protection of the region.

1.2 Purpose and Description of the EMP

The core purpose of an EMP is to reduce the identified potential environmental negative impacts to be generated from the proposed project and to mitigate the consequences. On the foundation of the impacts identified, targets are set to minimize the negative impacts, plans and decides action plan to accomplish the goal effectively and efficiently. EMP ensures an effective execution procedure and alternatives for mitigation measures planned/recommended to reduce or eliminate the adverse impacts.

minimize disturbance of the natural environment, promote and encourage decent environmental management practices, educate employees and/or contractors with regard to environmental obligations, prevent all methods of pollution, protect the natural environment, develop ideal waste management practices; and comply with all applicable laws, regulations and standards for environmental protection; and to define in the EMP the practices, techniques, roles and responsibilities to make sure the administration schedules are efficiently and correctly implemented.

Incineration has been used commonly for waste disposal, household, hazardous, and/or medical waste; nonetheless there is increasing public concern over the benefits of combusting the waste as opposed to the health risk from pollutants released through burning.

Waste Burning and Community Health notifies the evolving discussion with the greatest up to date information available on incineration, pollution, and human health along with professional decisions and recommendations for supplementary investigation and improvement of such areas as risk. This EMP provides details on methods involved in incineration and how pollutants are released, environmental changing aspects of pollutants and ways of human exposure, tools and methodologies for evaluating likely human health effects/concerns.

The labor force working on this proposed project shall be by law mandatory to comply and adhere to the principles set out in this EMP.

1.3 Terms of Reference (ToR)

NK Enviro Consultancy was requested by Seeis Incineration Services CC to assist obtain the required Environmental Clearance Certificate (ECC) to ensure compliance/adherence to national laws, legislations and regulations as required for the continued use of the incinerators for burning animal carcasses and other wastes at Farm Seeis.

The Terms of Reference are based on the requirements set out by the Environmental Management Act (EMA) of No.7 of 2007 and its Environmental Impact Assessment (EIA) Regulations of 2012. The below are described in this document:

i. The need and desirability of the intended use of the incinerators.
ii. Legislation and regulations that have been taken into consideration in the preparation of the EMP.
iii. Description of the project location.
iv. Details of the consequences and the mitigation measures recommended for using incinerators.

1.4 Compliance to the EMP

This EMP is a legally binding document as stipulated in the Environmental Management Act, 2007 (Act No. 7 of 2007). The Proponent, contractors and/or employees must therefore adhere and comply with the context of this document. Any changes made dependent on the changing environments and new additional information that may be available in the future, must be revised consequently with the provision of the EMA.

Non-compliance shall be recorded, including a brief explanation and the cause for the non-compliance, the person responsible, the consequence, and the correct action taken and any follow up measures required.

1.5 Limitations and Assumptions

The Safety Management Plan shall be developed by the Proponent.

2. PROJECT LOCATION AND DESCRIPTION

Farm Seeis (number 134) Portion B, is located in Khomas region, which is 57km outside Windhoek (Windhoek Rural) on the B6 road to Gobabis town. GPS coordinates of 22° 26' 33" South and 17° 35' 40" East.

Refer to locality map below (Figure 1) for the representation of the project location.

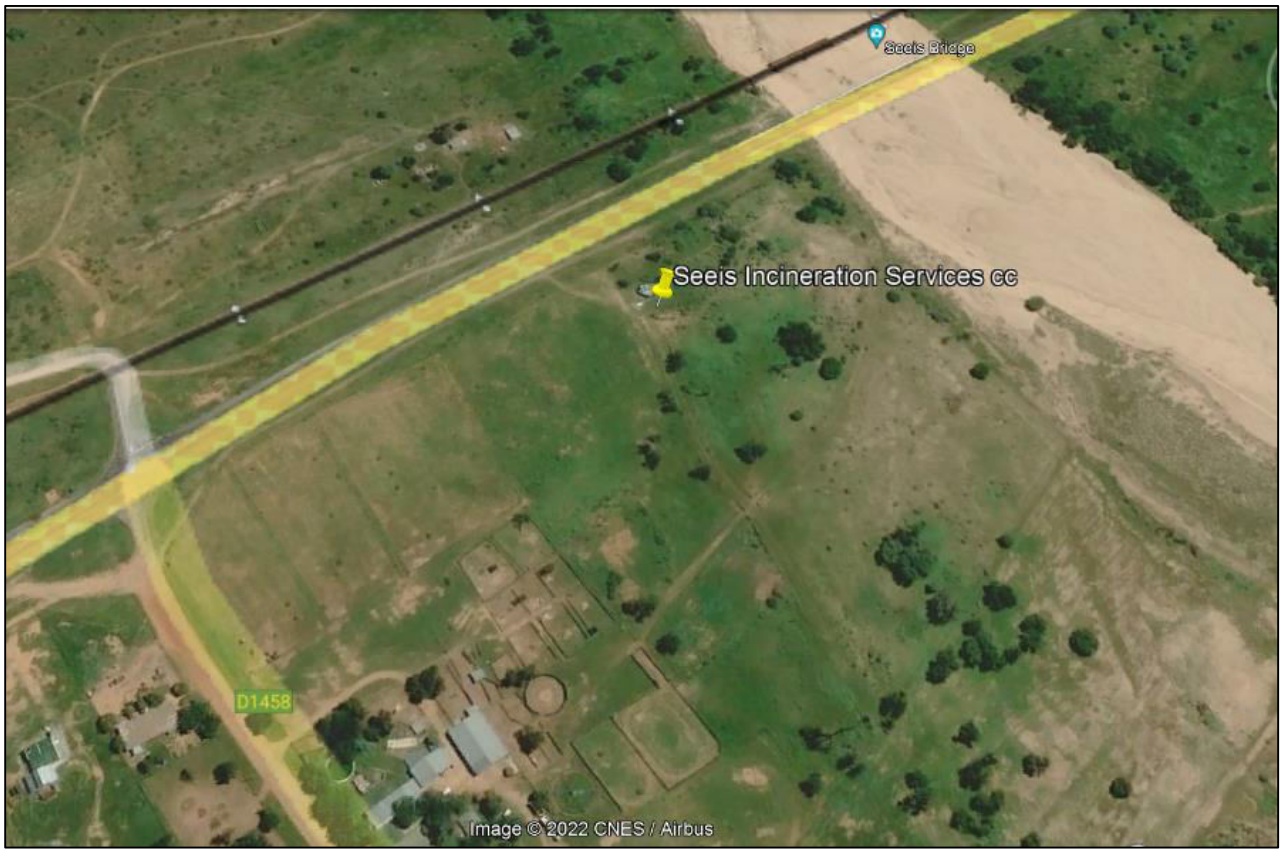

Figure 1: Shows the project location at Farm Seeis (yellow pin).

The incinerators are 2m x 2.5m; and comes as a stand-alone models, with few specific construction works for installation**.** Proper professional installation was done years back. The incinerators are serviced every six (6) months by a professional company, Central Technical Supplies; to ensure proper smooth operations; and that maintenance is done accordingly and as required.

Figure 2: Shows the front side of the incinerators at Farm Seeis.

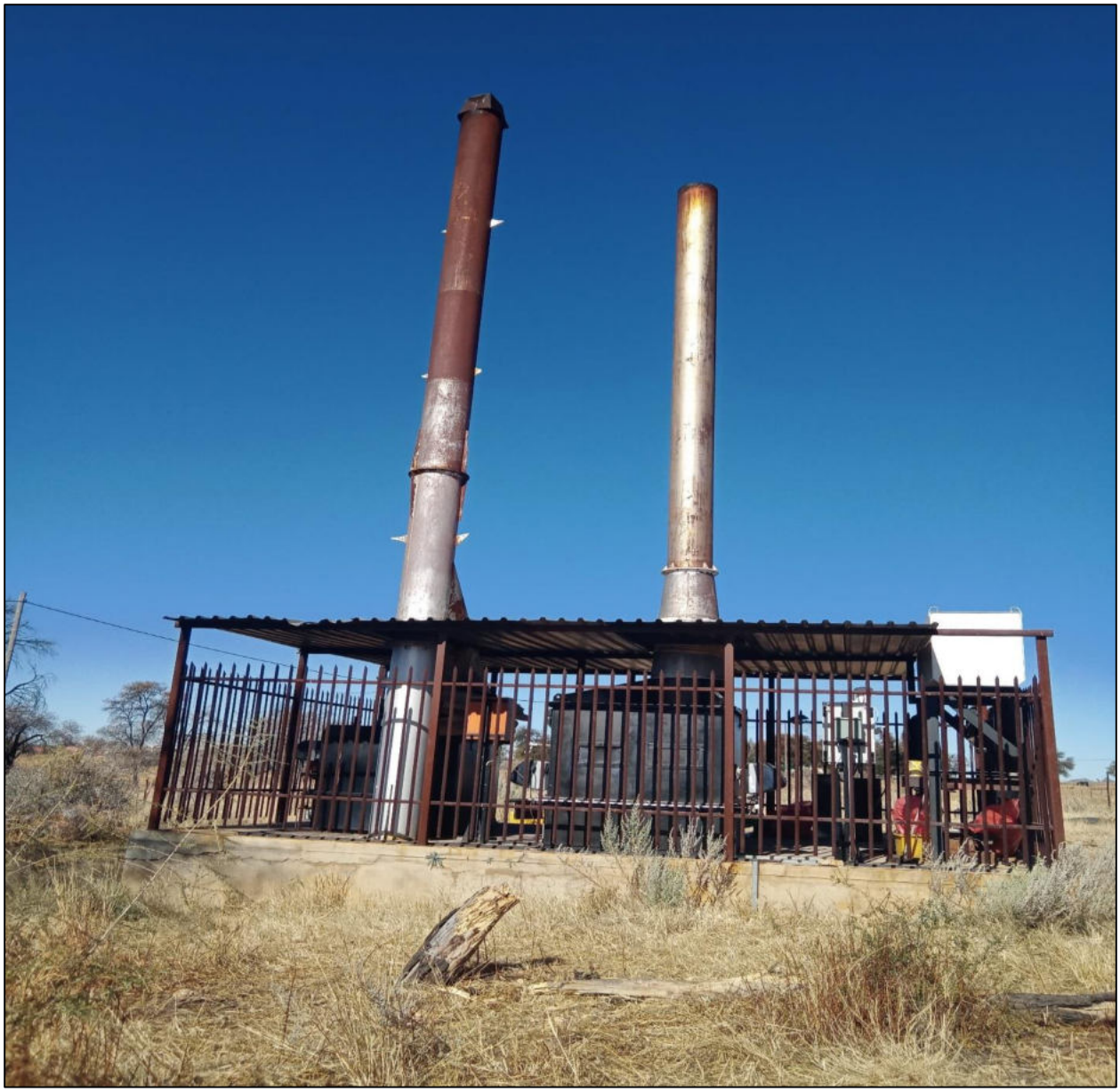

Figure 3: Shows the rear (back) side of the incinerators.

2.1 Biophysical Environment

The broader area is classified as the Highland Savanna (Giess, 1971) or highland Scrubland; and the vegetation structure classified as shrubs and low trees (Mendelsohn et al, 2009).

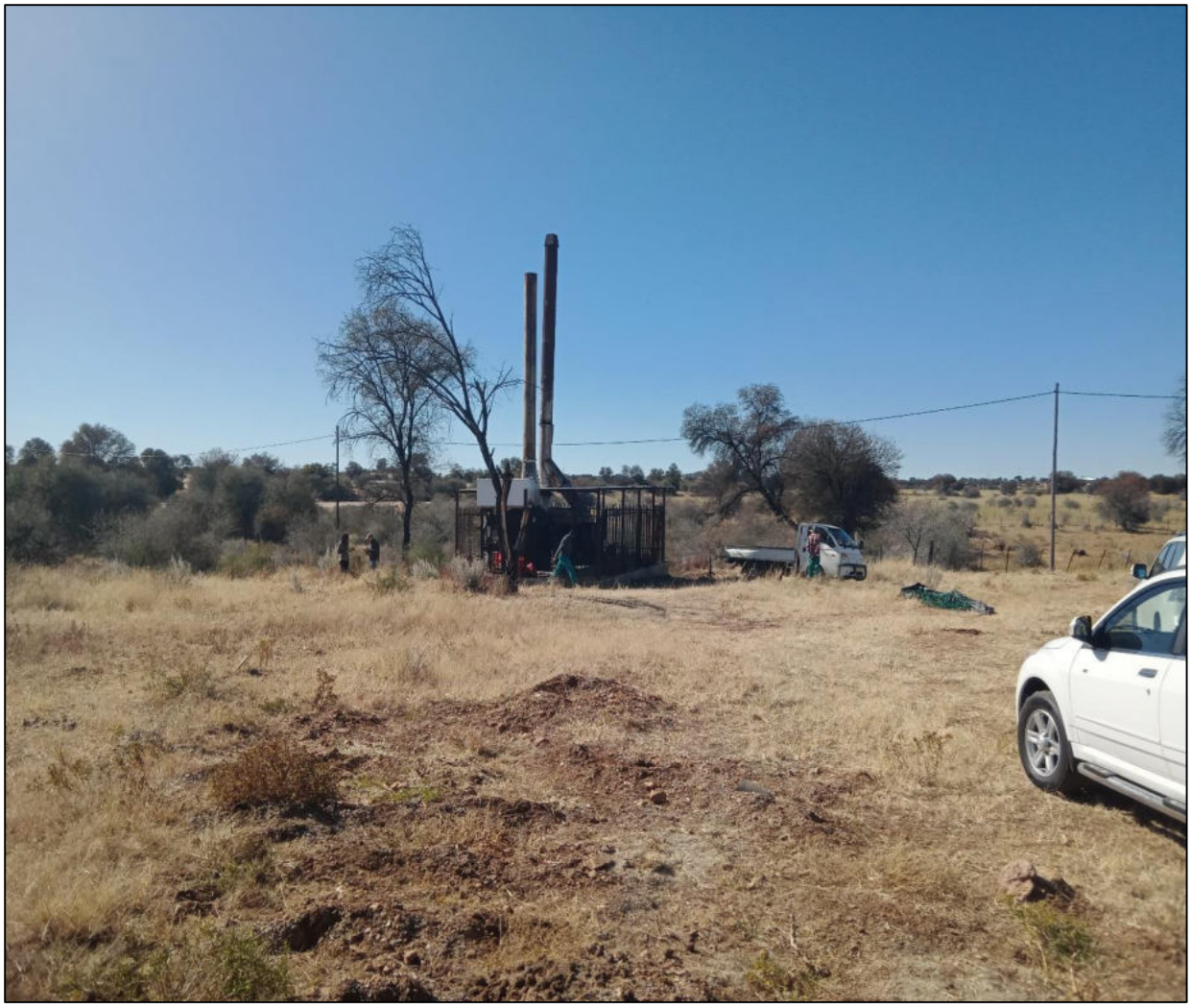

Figure 4: Shows the Study area

2.2 Staff Accommodation

Currently, no workers reside on site; thus, there's no staff accommodation on site. All three (3) temporarily employed staffs commute from Windhoek to Farm Seeis and back. The workers are working on a shift changing schedule.

2.3 Water and Power Supply

Water and electricity required for operation and maintenance is already provided for on-site per week, this includes the amount of water for cleaning purposes).

2.4 Waste

All waste generated will be disposed of at the local dumpsite/landfill used by all local inhabitants in the study and the surrounding area. The proponent will involve the providers of grease and other lubricants to collect and dispose of such waste in an environmentally responsive method. Ashes from the burned carcasses are usually put in plastics and disposed of at the Kupferberg dumping site.

Nine (9) frozen carcasses after incineration was reduced to ashes, as shown in **figure 5** below (red plastic bag); and all ready to be disposed of at the Kupferberg dumpsite.

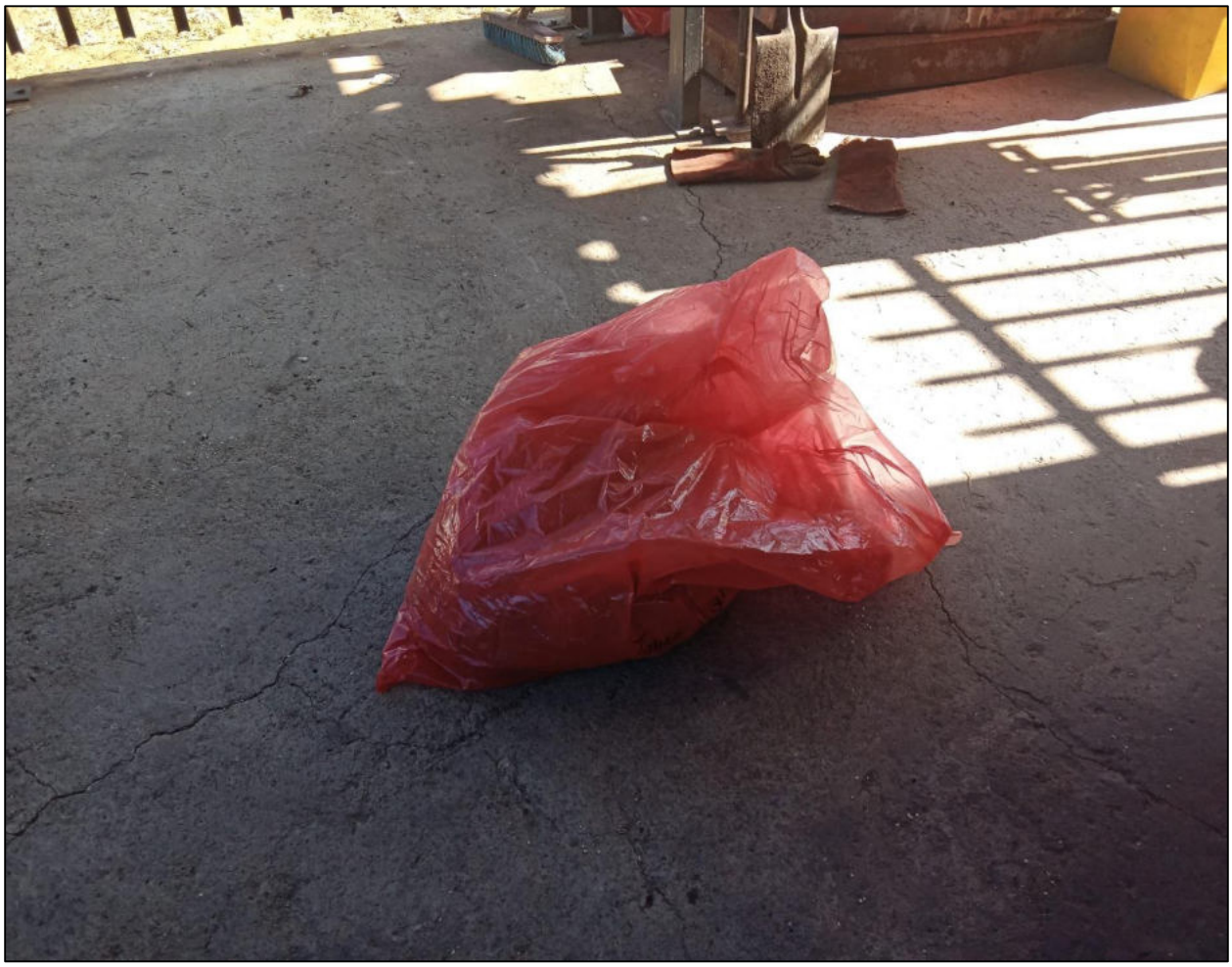

Figure 5: Nine (9) frozen carcasses after incineration was reduced to the ashes (final waste).

2.5 Fuel Storage

All light vehicle fuelling will not be done on-site, but at nearest filling stations. A 1000 litres tank for storing diesel for the incinerators is already safely mounted on-site; and has safety locks. Roughly, the incinerators uses 300 litres per month.

Figure 6: Shows the safely mounted 1000 litres diesel tank (yellow outline)

3. LEGAL FRAMEWORK

3.1 Environmental Requirement

This proposed project is a listed activity as specified in the Environmental Management Act No. 7 of 2007 and its Environmental Impact Assessment Regulation No. 30 of 2012. As a listed activity an application for an Environmental Clearance Certificate is mandatory. For this purpose, an EMP is compulsory as part of the ECC application to supplement the process.

This EMP has been embarked on in accordance with the requirements of the Environmental Management Act, No. 7 of 2007 and its regulations.

Table 1: Legislations, Acts and Policies of relevance

Legislation	**Applicability**	**Legislation Objective(s)**
The Namibian Constitution	To maintain the ecosystems, ecological processes and biological diversity by conducting Environmental Impact Assessment (EIA).	"The state shall actively promote and maintain the welfare of the people by adopting policies that are aimed at…maintenance of ecosystems, essential ecological processes and the biological diversity of Namibia and utilization of natural resources on a sustainable basis for the benefit of all Namibians, both for present and future".

Environmental Management Act No.7 of 2007	Legal requirement to carry out an Environmental Impact Assessment (EIA).	The Environmental Management Act No.7 of 2007 promotes the sustainable management of the environment and the use of natural resources and provides for the process of assessment and control of activities which may have significant effects on the environment; and provides for incidental matters. The Act ensures that potential impacts are considered, a comprehensive stakeholder's consultation is carried out, all interested and affected parties are given a chance to comment/object on the project. The Act as well provides a list of activities that may not be undertaken without an Environmental Clearance Certificate.
Environmental Impact Assessment (EIA) Regulations (GN notice No. 30 of 2012)	Provides guidelines for Environmental Assessments.	Provides procedures for Environmental Assessments.

Public Health Act No. 36 of 1919	Safeguards the public is protected from noise, dust and air pollution.	No person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health.
Water Resources Management Act No. 11 of 2013	Guarantees that the water systems are not polluted and that pollution control mechanisms are in place.	An Act to provide for the management, protection, development, use and conservation of water resources; to provide for the regulation and monitoring of water services and to provide for incidental matters.
Environmental Policy Framework (1995)	Provides guidelines for EIA.	The Policy ensures that all developmental projects are subjected to environmental assessments so that all potential impacts are taken into consideration and incorporated into the planning and development stages.
Labour Act No. 11 of 2007	Regulates labour in general, remuneration, etc in the country.	The Labour Act regulates labour in general and protects the safety,

		health and welfare of employees. The regulation of 1997 relating to the safety and health of employees at work, sets out the duties of employers, welfare and facilities at the work place.
Soil Conservation Act No. 76 of 1969	Promotes soil conservation.	The Act promotes the conservation of soil and the prevention of soil erosion.
National Waste Management Policy of Namibia section 2.5	States that *"To effectively manage waste and reduce the risks to both healthcare workers and the community, new technologies of managing wastes are recommended. Namibia should progressively aim to adopt the newer technologies if resources do permit."*	States that *"To effectively manage waste and reduce the risks to both healthcare workers and the community, new technologies of managing wastes are recommended. Namibia should progressively aim to adopt the newer technologies if resources do permit."*
Waste Disposal Site Siting Guidelines of 2017	Provide guidelines and conditions for Sanitary Landfills and Criteria for Site Selection.	Provide guiding principle and provisions for Sanitary Landfills and Criteria for Site Selection.
National Heritage Act No. 27 of 2004	Provides protection and conservation of places and objects that has national heritage significance; and the registration of such places or objects.	The Act makes provision for the protection of places and objects of heritage significance and the registration of such places

		And objects. Section 46 of the Act, further prohibits the removal, damage, alteration, excavation of national sites or remains; and Section 48, sets out the procedure for application and granting permits for exploration activities such as trenching, drilling, etc.
Hazardous substances Ordinance No. 14 of 1974	Controls the handling of hazardous substances such as fuel, fire, etc.	The Ordinance controls the handling of hazardous substances such as manufacturing, imports and exports to ensure human and environmental safety.
Namibia Integrated Health Care Waste Management Plan, 2010	Provides the vital information to allow health care facilities to institute a good health care waste management system in accordance with the regulatory requirements of Namibia.	Provides the vital information to allow health care facilities to institute a good health care waste management system in accordance with the regulatory requirements of Namibia.
Petroleum Product and Energy Act No, 13 of 1990	Provides for the safe handling of the petroleum products such as fuel and lubricants	The Act provides a framework for handling and distribution of petroleum products which may include purchase, sale, supply, acquisition, possession,

		disposal, storage or transportation thereof.
Word's Best Practices	Precautionary Approach Principle (Polluter Pays Principle). In cases of pollution, the proponent bears the full responsibility to clean up the environment.	Polluter must be responsible to clean up the environment.

4. PROJECT PERSONNEL, ROLES AND RESPONSIBILITIES

4.1 Roles and Responsibilities

Roles, responsibilities and authority shall be defined, documented and communicated in order to facilitate effective environmental management through implementation of the EMP.

The Environmental Management Act has three (3) main purposes:

i. To ensure that people consider the impact of activities on the environment carefully and in good time;
ii. To ensure that all interested or affected people have a chance to participate in environmental assessments; and
iii. To ensure that the results of environmental assessments are considered before any decisions are made about activities which might affect the environment.

Table 2: Roles and Responsibilities

ROLE	RESPONSIBILITIES
ENVIRONMENTAL COMPLIANCE OFFICER (ECO)	o The Ministry of Environment, Forestry and Tourism (MEFT) is the overseer of environmental protection. o The ECO shall be an appointed Environmental Officer from the Directorate of Environmental Affairs trusted to impose compliance. o The ECO may carry out inspections and monitoring any time to ensure compliance.

PROPONENT OR PROPONENT'S REPRESENTATIVE (SEEIS INCINERATION SERVICES CC)	o Overall responsibility for the implementation, administration and management of this EMP; o Responsible for providing the required resources (including financial and technical) for all responsibilities; o Employ Managers such as a Site Manager, employees or contractors; o Guarantee that all employees, contractors and visitors get inductions on environmental measures in this EMP report and safety measures as compiled by the Proponent. o Ensure the environmental rules are communicated to all personnel, contractors and visitors and make sure that they comply with the EMP.
SITE MANAGER/SUPERVISOR	o Ensure all employees and contractors take part in a site induction procedure before they commence work. o Keep community concerns and issues register. o Keep records of complaints; o Ensure that greatest environmental practice is carried out all the time; and that any non-compliance or accidents are reported to the authority. o Responsible for compliance with this EMP, oversee all day to day activities, including routine and non-routine maintenance works are carried out accordingly.

	o Make sure enough resources are available for the execution of this EMP; o Ensure that all employees, contractors and visitors on site are familiar with the requirements of this EMP, significant to their roles at all times; o Responsible for environmental awareness and management training and site inductions for all employees, contractors and/or visitors; o Monitor everyday tasks and ensure devotion by employees to the EMP; o Receive, respond to and record complaints; and o Report any non-compliance or accidents to the Proponent. o Accountable for management, maintenance and review of the Environmental Management Plan.
PERSONNEL (AND CONTRACTORS AND VISITORS)	o Accountable for reporting incidents, accidents, tasks and conditions/issues that differ from the EMP or that are not complying with the EMP immediately to their Supervisor; o Responsible for complying and adhering to this EMP at all times. o Attend site inductions when required. o Ensure that enough information on activities, roles are provided and understood. o Wear personal protective clothing at all times on site or when carrying out their duties.

4.2 Employment

The Proponent shall make sure that local people have access to information about job opportunities; and that the unemployed living in the local area are considered first for employment positions; the total number of job opportunities shall be made known together with the related skills and qualifications; the employing process should be clearly explained and communicated; the duration of the employment shall be clearly specified; and staffs with no proof of permanent residence shall not be employed.

4.3 Contractors

All contractors that will be appointed from time to time should ensure that correct actions are taken to report all likely environmental hazards and cases/incidents to the Site Manager; carry-out their duties in accordance with this EMP and related policies, procedures, management plans, legislative requirements; and executing suitable environmental management measures.

4.4 Disciplinary Actions

Non-compliance to the EMP shall result in disciplinary legal action such as:

- Suspension of work;
- Monetary penalties.

The disciplinary action shall be determined as per the provision of EMA and relevant statutory framework. Under Section 27 (4), Any person who contravenes subsection (3) commits an offence and is on conviction liable to a fine not exceeding N$500 000 or to imprisonment for a period not exceeding 25 years or to both such fine and such imprisonment".

5. TRAINING AND COMMUNICATIONS

5.1 Emergency Response Services

All employees will be made aware of the below emergency response numbers. These numbers will be posted on site and made available in every company vehicle.

Table 3: Emergency Contact Numbers

TOWN	POLICE	AMBULANCE	FIRE BRIGADE
WINDHOEK (061)	1 0111 061 30 2302 (CITY POLICE)	21 1111 (WHK MUNICIPALITY) 203 3282/3 (WHK CENTRAL HOSPITAL) 061 41 1600 (EMED 24) 081 924 299 9924, 30 5928	21 1111

5.2 Communication and Training

At all times, the Proponent and/or Site Manager shall communicate all environmental issues to the team through audits, site inductions, site inspections; information on incident response actions; and meetings on specific environmental issues.

All Stakeholders should be aware of all possible impacts and how to reduce them. It is important to ensure that all stakeholders are well informed frequently and properly trained on functioning measures as required. All employees employed shall be knowledgeable to execute responsibilities in a manner that are likely to reduce negative environmental impacts.

All the workers should understand why the environment needs to be protected, including the social aspects involved, how the use of incinerators can impact the environment and possible mitigation measures.

This EMP should be given/distributed to Staffs and/or all contractors (if any) working on site to make sure that the environmental requirements are effectively

communicated. Delicate tasks shall be communicated to workers and contractors.

Considerations among the management will take account of any complaints received and actions to resolve them, incidents and responses, assessments, audits and any goal achievements.

5.3 Induction

Inductions are vital information sessions that helps to familiarize people with the locations, equipment, materials, processes and tasks they may encounter while working at or visiting a site for the first time.

To achieve the best results, inductions need to be tailored and targeted. Inductions should accommodate all workers (i.e. employees, contractors, trainees).

Workers shall require a refresher if:

- They have been absent for some time
- The work environment is different to that normally encountered (e.g. switching to night shift for first time).

5.3.1 Site inductions

Site inductions shall ensure that staffs receive appropriate information and, before commencing work, to be able to recognize the hazards on site that can harm them and the environment. Workers should also understand the control measures in place to protect themselves from the hazards/incidents.

Induction requirements shall be determined using information obtained from:

- Legislative requirements
- Site specific competency and training needs analysis
- Standards applicable to site.

All site inductions shall contain an assessment to ensure the required knowledge has been retained by worker. It is vital to examine the site's induction regularly to determine if the content is still related.

Site inductions shall include a formal program that provides workers with an understanding of:

- Site layout including emergency assembly points
- Emergency contact numbers
- The obligations of the Proponent and employees and/or contractors
- Common likely incidents on the site and their control measures
- Basic environmental management principles to reduce negative impacts and tools used on site
- Reporting processes for incidents; and
- The standard behavior expected of workers on sites

5.4 Complaint Register

All personnel shall be informed about the complaints register, its location and the person responsible for keeping it, in order to refer residents or the public who wish to lodge a complaint. The complaints register shall be available at all times; and will be made available for government or public review upon request. It is the duty of the Proponent or Site Manager/Supervisor to maintain a complaint register that has details of the names of the complainant, date and time of the complaint and actions taken to resolve the issues. The complainant shall be informed in writing of the results of the investigation and actions to be taken to rectify or address the matters.

5.5 Environmental Inspections and Compliance Monitoring

The Proponent and/or Site Manager shall be responsible to ensure that this EMP is adhered to and complied with at all times throughout their daily roles; and to make sure that pollution control measures are adhered to. Daily, weekly and monthly inspections will be carried out.

6. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The overall objective of the management actions of this EMP is to minimize the air emissions, odour nuisance, noise, waste generation, low to zero contamination cases, minimal clearing of vegetation and earthworks (if any), safeguard indigenous flora and fauna; and ensure least disruption to activities in the nearby farms/areas.

This EMP is designed by considering environmental, social, safety and health characteristics.

The following provisions of the EMP shall apply to planning, construction and operation phases.

Table 4: Environment: Environmental Mitigation Measures to be executed

POTENTIAL IMPACT	**MITIGATION MEASURE**	**MONITORING REQUIREMENTS**	**RESPONSIBILITY**
ODOUR NUISANCE	*****Employees should ensure the incinerators are well cleaned, maintained and properly functioning at all times. * Ensure that the incinerators are not overloaded to reduce or eliminate the smoke/emissions.	REGULARLY/ WEEKLY	SITE MANAGER/ SUPERVISOR
AIR POLLUTION EMISSIONS, SMOKE (Burning of waste generates smoke which is associated with several public health risks such as	***** All vehicles and machinery/equipment to be shut down between periods when not in use. *Ensure that the incinerators are not overloaded to reduce	NB: PUBLIC COMPLAINTS MUST BE RECORDED DAILY/WEEKLY	SITE MANAGER/ SUPERVISOR

respiratory abnormalities, blood disorder, abdominal problems, etc)	or eliminate the smoke/emissions into the air. *No burning of waste must be done on windy days. *Only a certain amount of carcasses/waste must be burnt at a time. *All personnel must be provided with PPE.		
NOISE NUISANCE	***** Personnel must NOT be exposed to noise levels above the required 85dB, earmuffs must be provided. * All vehicles and machinery/equipment to be shut down. between periods of use. *Noise nuisance shall be monitored accordingly.	NB: PUBLIC COMPLAINTS MUST BE RECORDED DAILY/WEEKLY	SITE MANAGER/ SUPERVISOR, EMPLOYEES, CONTRACTORS
FIRE AND EXPLOSION HAZARD/DANGER	***** The Emergency and Crisis Response Plan should be executed; and must address the possible leaks. * Adequate water must at all times be accessible or available for fire fighting dedications. *Virtuous cleaning such as the elimination of combustible materials	DAILY	SITE MANAGER/ SUPERVISOR, EMPLOYEES, CONTRACTORS

	e.g. trash, dry vegetation; and hydrocarbon-saturated soils should be removed from the site accordingly. *Consistent checks to examine and test fire fighting kits; and pollution control measures should be done regularly. *Emergency evacuation/exit, entry, assembly points, etc should be labelled and visible to all personnel and contractors on site. *The Proponent should ensure that all employees undergo fire fighting training and all relevant training required.		
SURFACE/ GROUND WATER CONTAMINATION	* Waste water shall be contained. *Empty containers of chemicals shall not be dumped just anywhere, all the garbage should be collected and disposed of at approved sites. * Ensure proper toilet facilities are on site and are working properly.	DAILY	SITE MANAGER/ SUPERVISOR, EMPLOYEES, CONTRACTORS

	* Risks of surface/groundwater contamination impacts shall be reduced through proper induction and training of staff; and installation of suitable containment structures. * Proper Installation of oil seizure and leak detection systems. * The Site Manager/Supervisor or contractor shall ensure that there is no toilet leakages or during normal operation; and that the contents/substances are properly removed from site.		
HYDROCARBON WASTE	*****This impact can be minimised through proper training of the workers**.** ***** Appropriate and suitable monitoring of the product/diesel level in the tank must take place to minimise or avoid overfilling. * Spills must be cleaned up immediately; and if there spill is more than 200 litres, it must be reported to the Ministry	DAILY/ REGULARLY	SITE MANAGER/ SUPERVISOR

	of Mines and Energy (MME). * An emergency response plan and appropriate suitable equipment is recommended, to avoid or manage any spillage or leaks properly and efficiently.		
GENERATION OF WASTE	*****After incineration, ashes to be wrapped in plastic bags and disposed of at an approved local site accordingly. ***** Proper toilet facilities should be installed at the construction site or other provisions should be made. * Polluted wastes in the form of soil, litter, building rubble and other material must be disposed of at an appropriate disposal site. *Tanks and pipelines removed must be disposed of in a suitable method by an approved contractor/service provider.	DAILY	SITE MANAGER/ SUPERVISOR, EMPLOYEES, CONTRACTORS

HERITAGE IMPACT	*There are no known heritage areas or objects impacted by the operation so far in the study area. * If archaeological remains or objects with national values such as Stoneware, skeletons, shells, prehistoric clothing or weapons, ancient knives and forks, graves etc discovered on-site, the area must be secured off; and the relevant authorities must be informed of such discoveries straightaway.	DAILY	PROPONENT/ SITE MANAGER/
BIODIVERSITY LOSS/HABITAT DESTRUCTION	*Employees should not be allowed to cut and collect firewood. * Promote re-vegetation in cleared areas. *No animals must be killed unless it poses danger. *No domestic animals should be allowed at the site. *Prevent the destruction of protected species by minimizing clearing areas through proper planning.	DAILY	SITE MANAGER/ SUPERVISOR, EMPLOYEES, CONTRACTORS

	* Where possible, rescue and relocate plants of significance.		

7. CONCLUSION

Safe disposal of carcasses is an essential issue every day, routine management of livestock and poultry mortalities prevents disease transmission and protects the air and water quality.

Wherever impacts happen, prompt actions must be taken to minimize the escalation of effects associated with these impacts. To guarantee the significance of this EMP document to the exact phase, it needs to be revised at all times during all phases particularly when there is a modification in a mitigation measure.

Proper implementation of the EMP for this specific proposed establishment and use of incinerators at Farm Seeis, will help reduce negative impacts that are relatively moderate to low or zero enhance potential benefits to the community in the surrounding areas and Khomas Region as a whole.

This Environmental Management Plan (EMP) shall be used as an on-site reference document at all times; and reviewing should take place in order to ensure compliance/adherence.

Overall, the use of incinerators reduces the volume of waste by up to 85%. Thus, consideration by the Competent Authority to issue an Environmental Clearance Certificate to the Proponent is recommended.

8. REFERENCES

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