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ECC-123-347-REP-07-D

ENVIRONMENTAL MANAGEMENT PLAN

**FOR THE DEVELOPMENT AND OPERATION OF A CHARCOAL AND BRIQUETTE
PROCESSING, PACKAGING, AND STORAGE FACILITY IN OUTJO, KUNENE REGION,
NAMIBIA**

PREPARED FOR



August 2021

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DEFINITIONS AND ABBREVIATIONS

BSCI	Business Social Compliance Initiative
ECC	Environmental Compliance Consultancy
EIA	Environmental Impact Assessment
EMA	Environmental Management Act, 2007
EMP	Environmental Management Plan
FSC	Forest Stewardship Council
IFC	International Finance Corporation
ILO	International Labour Organisation
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment Forestry and Tourism
MME	Ministry of Mines and Energy
MSDS	Material Safety Data Sheet
NCA	Namibia Charcoal Association
PPE	Personal Protective Equipment
SANS	South African National Standards
SHE	Safety Health Environmental

1 INTRODUCTION

1.1 BACKGROUND TO THE PROPOSED PROJECT

The project site is located on erf 1113 in the Western industrial area (heavy industrial area) to the west of the town of Outjo, in the Kunene Region and can be accessed via the C39 main road on route to Khorixas. The site location is shown in Figure 1. Nexus Charcoal (Pty) Ltd (hereinafter, the proponent or Nexus Charcoal) intends to set up a charcoal processing and briquette production facility, that will include sorting and packaging facilities. At the start of the assessment process, construction of the warehouse, ablution block, water reticulation and a sewer reticulation system has started. The proponent intends to receive bulk charcoal from farms within a 150 km radius from the site. The charcoal will be sieved, sorted and packed in bags on site. On-site a briquette production facility will also be constructed, where charcoal fines (1mm-20mm in size) will be crushed, mixed and pressed into briquettes. Greenhouse tunnels will also be constructed where Briquettes will be dried until they are ready to be packed on site.

Infrastructure that will be constructed for the proposed project, will include the following: Administration office, Packaging and storage area, Charcoal processing area, raw material bulk storage area, Waste storage and management area, Water storage tanks, Warehouse, Ablution block and a septic tank. Nexus Charcoal will source their water from an existing borehole on-site; for electricity Cenored powerlines will be extended onto the site and a 315kVA generator will be installed on the site as well. They also plan to install a 2000L Diesel tank for fuel storage.

1.2 ENVIRONMENTAL REGULATORY REQUIREMENTS

The proposed project activities trigger listed activity 2.2 within the regulations of the Environmental Management Act, No. 7 of 2007 and the Environmental Impact Assessment Regulation, No. 30 of 2012. As a listed activity is triggered an application for an environmental clearance certificate is required. An environmental scoping report and EMP are required as part of the environmental clearance certificate application, as well as to support the decision-making process. This EMP has been developed in accordance with the requirements of the Environmental Management Act, No. 7 of 2007 and its regulations.

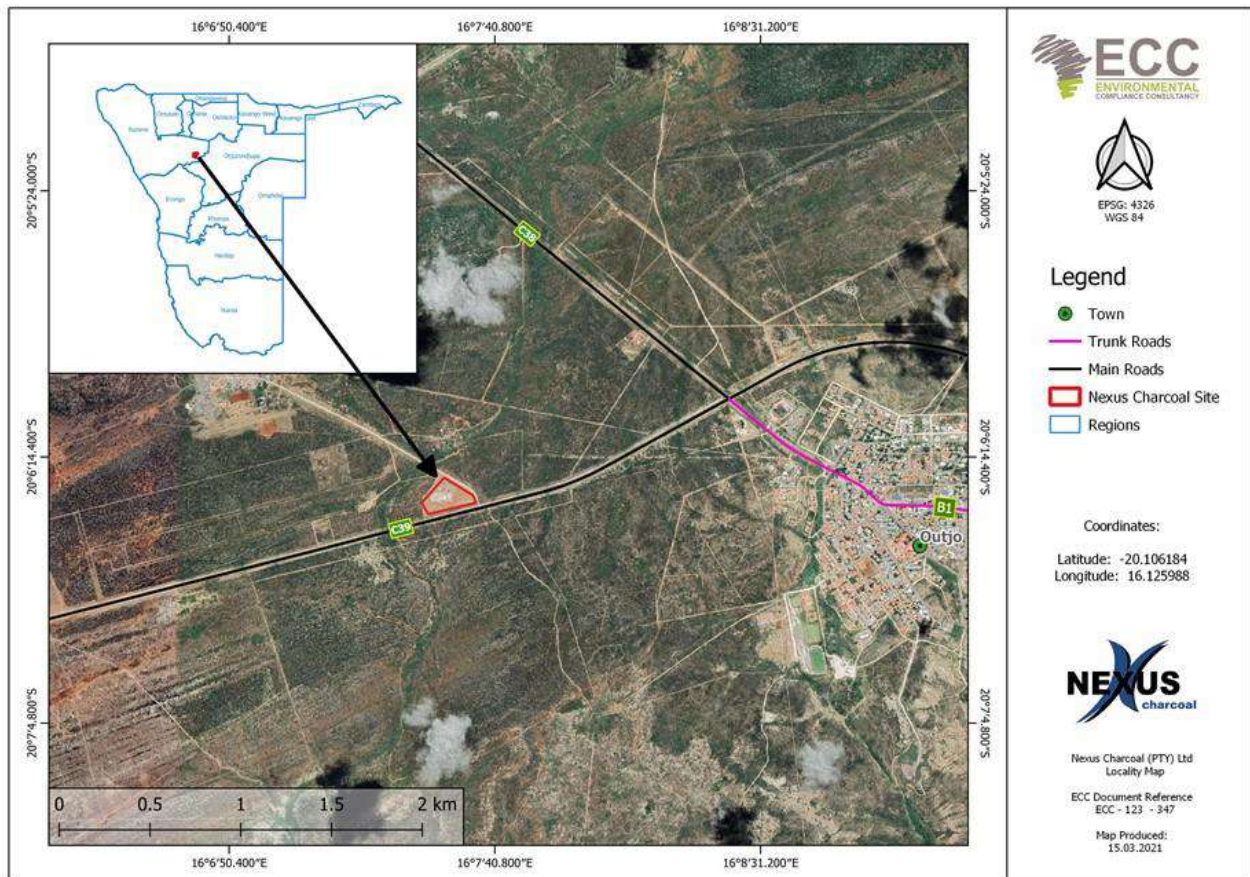


FIGURE 1: LOCATION OF THE PROPOSED CHARCOAL FACILITY

1.3 PURPOSE AND SCOPE OF THIS REPORT

This EMP provides a logical framework, proposed mitigation measures and management strategies for the activities associated with the proposed project, in this way ensuring that the potential environmental and social impacts are mitigated and minimised as far as practically possible and that statutory and other legal obligations are adhered to and fulfilled. Outlined in the EMP are the protocols, procedures and roles and responsibilities to ensure that management arrangements are effectively and appropriately implemented.

This EMP forms an appendix to the environmental scoping report and has been based on the findings of the assessment; therefore, the environmental scoping report should be referred to for further information on the proposed project, assessment methodology, applicable legislation, and assessment findings.

This EMP is a live document and shall be reviewed at predetermined intervals, or updated when the scope of work alters, or when further data or information can be added. All personnel working on the project will be legally required to comply with the standards set out in this EMP.

The scope of this EMP includes all activities carried out during the construction and operational stages of the project.

1.4 MANAGEMENT OF THIS EMP

The proponent will hold the environmental clearance certificate for the proposed project and shall be responsible for the implementation and management of this EMP. Before the commencement of the project, this EMP shall be reviewed, amended as required and approved for implementation. The implementation and management of this EMP and thus the monitoring of compliance shall be undertaken through daily duties and activities as well as monthly inspections.

This EMP shall be circulated to all contractors and made available on ECC's website.

1.5 LIMITATIONS, UNCERTAINTIES AND ASSUMPTIONS OF THIS EMP

This EMP does not include measures for compliance with statutory occupational health and safety requirements. This will be provided in the safety management plan to be developed by the proponent independently.

Where there is any conflict between the provisions of this EMP and any contractor's obligations under their respective contracts, including statutory requirements (such as licences, project approval conditions, permits, standards, guidelines and relevant laws), the contract and statutory requirements are to take precedence.

The information contained in this EMP has been based on the project description as provided in the environmental scoping report. Where the project methods alter, this EMP may require updating and potential further assessment undertaken.

1.6 ENVIRONMENTAL CONSULTANCY

Environmental Compliance Consultancy (ECC), a Namibian consultancy with registration number CC/2013/11401, has prepared this document on behalf of the proponent. ECC operates exclusively in the environmental, social, health and safety fields for clients across Southern Africa in the public and private sector. ECC is independent of the proponent and has no vested or financial interest in the proposed project except for fair remuneration of professional services rendered.

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2 PROJECT MANAGEMENT PERSONNEL

The proponent shall provide a project team to oversee and undertake the construction and operation activities, which shall be composed of the proponent's personnel and contractors. A nominated role shall be identified to ensure the management and implementation of this EMP throughout the project is carried out, which shall be supported by the proponent.

2.1 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

The proponent shall be responsible for:

- Ensuring all members of the project team, including contractors, comply with the procedures set out in this EMP;
- Ensuring that all personnel are provided with sufficient training, supervision, and instruction to fulfil this requirement; and
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm, in writing, that their responsibilities are clearly understood.

Contractors shall be responsible for ensuring and demonstrating that all personnel employed by them are compliant with this EMP, and meet the responsibilities listed below. The key personnel and environmental responsibilities of each role throughout the project life are presented in Table 1.

TABLE 1 - ROLES AND RESPONSIBILITIES

ROLE	RESPONSIBILITIES & DUTIES
<p>General Manager (Proponent)</p>	<ul style="list-style-type: none"> - Responsible for ensuring compliance with this EMP; - Ensuring employees understand and comply with the requirements of this EMP; - Ensuring that all personnel are provided with enough training, supervision and instruction to fulfil this requirement; - Ensuring compliance with this EMP including overseeing the day-to-day activities during operations, and routine and non-routine maintenance works during operations; - Ensure the environmental policy is communicated to all personnel; - Responsible for providing the required resources (including financial and technical) to complete any required tasks; - Responsible for the management, maintenance and revisions of this EMP; - Maintain community issues and concerns register and keep records of complaints and responses provided; - Maintain an up-to-date register(s) of employees who have completed the site induction; - Ensuring that best environmental practice is undertaken throughout

ROLE	RESPONSIBILITIES & DUTIES
	<p>the operations of the facility;</p> <ul style="list-style-type: none"> - Notifying relevant regulatory authorities if serious environmental incidents occur as soon as possible. - Being responsible for all management plans and environmental monitoring; and - Receiving and responding to environment-related complaints received from the public or other stakeholders.
<p>Foreman (Appointed HSE responsible person}</p>	<p>The Nexus Charcoal facilities foreman will be responsible for the implementation of the EMP for the facility. The foreman will be available, as required, throughout the operation of the facility and are responsible for the following roles:</p> <ul style="list-style-type: none"> - Bearing authority and independence to demand reasonable steps as required to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant construction activities be ceased immediately should an adverse impact on the environment be likely to occur; - Weekly checklists must be completed by the foreman and findings submitted to the general manager; - Monthly EMP checklists must be completed by the foreman. Findings are to be submitted to the general manager; - Provisioning of environmental awareness/management training and inductions; - Ensuring that best environmental practice is undertaken throughout the operations of the facility; and - Timely distribution of any relevant environmental documentation, including revisions to this EMP to all staff. - Responsible for being compliant with and adhering to this EMP at all times; - Ensuring they have undertaken a site induction and are conversant with the requirements of this EMP; and - Reporting of any operations and conditions that deviate from the EMP or any non-compliant issues or accidents to the proponent.
<p>Employees / Contractors as well as visitors where applicable</p>	<p>Any contractors hired for operation or maintenance activities at the facility shall be compliant with this EMP, and shall be responsible for the following:</p> <ul style="list-style-type: none"> - Undertaking activities in accordance with this EMP as well as relevant policies, procedures, management plans, statutory requirements, and contract requirements; - Implementing appropriate environmental and safety management measures; - Reporting environmental issues, including actual or potential environmental incidents and hazards, to the proponent, and;

ROLE	RESPONSIBILITIES & DUTIES
	<ul style="list-style-type: none"> - Ensuring appropriate corrective or remedial action is taken to address all environmental hazards and incidents reported by employees and subcontractors.

2.2 EMPLOYMENT

The proponent and all contractors shall comply with the requirements of the regulations for Labour, Health and Safety and any amendments to these regulations. The following shall be complied with:

- In liaison with local government, the community, stakeholders and relevant authorities the proponent shall ensure that local people have access to information about job opportunities and are considered first for construction/maintenance contract employment positions;
- The number of job opportunities shall be made known together with the associated skills and qualifications;
- The maximum length of time the job is likely to last for shall be indicated;
- Foreign workers with no proof of permanent legal residence shall not be hired;
- Every effort shall be made to recruit from the pool of unemployed workers living in the local area, and
- Every employee hired must be provided with a valid employment contract stating, the position hired for, the hourly remuneration offered.

3 COMMUNICATION AND TRAINING

It is important that regular communication is maintained with all the stakeholders and that stakeholders are made aware of potential impacts and how to minimise or avoid them. This section sets out the framework for communication and training concerning the EMP.

3.1 COMMUNICATIONS

The foreman shall communicate any environmental issues to the project team through the following means (as and when required):

- Site induction;
- Internal and external audits and site inspections;
- Toolbox talks, including instruction on incident response procedures; and
- Briefings on key project-specific environmental issues.

This EMP shall be distributed to the project team including any contractors and personnel working on the site to ensure that the environmental requirements are adequately communicated. Key activities and environmentally sensitive operations shall be briefed to workers and contractors.

During the construction and operational activities, communication amongst the management team shall include discussing any complaints received and actions to resolve them, any inspections, audits or non-conformance with this EMP, and any objectives or target achievements.

3.2 ENVIRONMENTAL EMERGENCY AND RESPONSE

The general manager and the foreman are the primary contact persons in the event of an environmental emergency. The general manager has the authority and independence to request reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse environmental impact be anticipated.

In the event of an incident that requires emergency services, the following services should be contacted.

TABLE 2 - EMERGENCY CONTACT DETAILS

TOWN	AMBULANCE	POLICE	FIRE BRIGADE
Outjo	+264 (67) 31-3044	+264 (67) 1-0111	+264 (67) 31-3013

For large-scale spills (greater than 200 litres) and other significant environmental incidents, the fire services should be contacted as required and the MEFT office informed of the incident (telephone +264 61 284 2111). All correspondence with MEFT should be undertaken by the general manager as guided by the foreman.

3.3 COMPLAINTS HANDLING AND RECORDING

The proponent shall maintain a complaint's register that will detail the name and contact details of the complainant, the date and time of the complaint, the nature of the complaint, the appropriate action is taken to resolve issues, and the date of complaint handover. The proponent shall be responsible for nominating the correct personnel to coordinate and resolve the issue.

Any complaints received verbally shall be recorded as per above and the information shall be given to the proponent who is responsible for the management of complaints and will provide a written response to the complainant.

The workforce shall be informed about the complaints register, its location and the person responsible, to refer residents or the general public who wish to lodge a complaint. The complainant shall be informed in writing of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken, the reasons why are to be recorded in the register.

The complaints register shall be kept for the facility and will be available for government or public review upon request.

3.4 TRAINING AND AWARENESS

All personnel working on the project shall be competent to perform tasks that have the potential to cause an environmental impact. Competence is defined in terms of appropriate education, training, and experience.

3.4.1 SITE INDUCTION

All personnel involved in the project shall be inducted to the site with a specific environment and social awareness training component. The environment and social awareness training shall ensure that personnel are familiar with the principles of this EMP, the environment and social aspects and impacts associated with their activities, the procedures in place to control these impacts and the consequences of departure from these procedures. The proponent shall ensure a register of completed training is maintained.

The site induction should include, but not limited to the following:

- A general site-specific induction that outlines:
 - o What is meant by "environment" and "social";
 - o What are the environmental risks and impacts of this facility;
 - o What can be done to mitigate against such impacts; and
 - o Why the environment needs to be protected and conserved.
- The inductee's role and responsibilities concerning implementing the EMP;
- The sites environmental rules;
- Details of how to deal with, and who to contact if environmental problems do occur;

- Basic vegetation clearing principles and species ID sheets;
- Focal themes such as compliance, reporting of accidents and incidents, good housekeeping and standard procedures for waste management;
- The potential consequences of non-compliance with this EMP and relevant statutory requirements; and
- The roles of responsible people for the project.

4 REPORTING, COMPLIANCE AND ENFORCEMENT

4.1 ENVIRONMENTAL INSPECTIONS AND COMPLIANCE MONITORING

4.1.1 DAILY COMPLIANCE MONITORING

A copy of this EMP shall be on-site throughout the project and shall be available upon request. It is the responsibility of the foreman to enforce the provisions of this EMP and ensure this EMP is complied with by all personnel daily throughout the facility. Daily, weekly and monthly inspections will be undertaken. Any environmental problems or risks identified shall be notified to the foreman and actioned as soon as is reasonably practicable.

4.1.2 MONTHLY COMPLIANCE MONITORING

Monthly inspections shall be undertaken by the general manager to check that the standards and procedures set out in this EMP are being complied with and pollution control measures are in place and working correctly. Any non-conformance shall be recorded, including the following details: a brief description of non-conformance, the reason for the non-conformance, the responsible party, the result (consequence), and the corrective action taken and any necessary follow up measures required.

4.1.3 VOLUNTARY SUBSCRIPTION TO THE FOREST STEWARDSHIP COUNCIL (FSC)

Should the proponent wish to produce charcoal for export to international markets with the endorsement of an internationally accredited organisation, they may consider applying for an FSC certification. Membership to the FSC body is entirely voluntary.

4.1.4 REPORTING

There shall be a requirement to ensure that any incident or non-compliance, including any environmental issue, failure of equipment or accident, is reported to the general manager.

4.2 RELEVANT PERMIT

Although the Water Resources Management Act, No. 11 of 2013 is not enforced, it is best practice to adhere to its stipulations while ensuring compliance with the Water Act, No. 54 of 1956, which is maintained still. Since water is sourced from existing boreholes, a licence to abstract water for commercial use is required in terms of the Water Act, No. 54 of 1956 and shall operate in accordance with any conditions of the licence.

To obtain an effluent wastewater permit, the proponent should have the following information and complete the application:

- Specification of the treatment system (type of technology);
- Description of major activities resulting in an effluent generation;
- List of contaminants (analysis of effluent samples);
- Effluent quality;
- Points of discharge;
- Show the present average quantities of incoming water, recycled water, final outflow; and
- Where final effluent will be discharged.

4.3 NON-COMPLIANCE

Where it has been identified that works are not compliant with this EMP, the proponent shall employ corrective actions so that the works return to being compliant as soon as possible. In instances where the requirements of the EMP are not upheld, a non-conformance and corrective action notice shall be produced. The notice shall be generated during the inspections and the general manager shall be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

A non-compliance event or situation, for example, is considered if:

- There is evidence of a contravention of this EMP and associated indicators or objectives;
- The foreman or the contractor has failed to comply with corrective or other instructions issued by the manager or qualified authority; or
- The foreman or contractor fails to respond to complaints from the public.

Activities shall be stopped in the event of a non-compliant event identified until corrective action(s) has been completed.

4.4 INCIDENT REPORTING

The general manager must ensure that an accident and incident (including minor or near-miss) reporting system is maintained by the foreman so that all applicable statutory requirements are covered. For any serious incident involving a fatality, or permanent disability, the incident scene must be left untouched until witnessed by a representative of the police. This requirement does not preclude immediate first aid being administered and the location being made safe.

The foreman must investigate the cause of all work accidents and significant incidents and must provide the results of the investigation and recommendations on how to prevent a recurrence of such incidents. A formal root-cause investigation process should be followed.

4.4.1 DISCIPLINARY ACTION

This EMP is a legally binding document and non-compliance with it shall result in disciplinary action being taken against the perpetrator(s). Such action may take the form of (but is not limited to):

- Fines/penalties;
- Legal action;
- Monetary penalties imposed by the proponent on the contractor;
- Withdrawal of licence(s); and
- Suspension of work.

The disciplinary action shall be determined according to the nature and extent of the transgression / non-compliance, and penalties are to be weighed against the severity of the incident.

5 ENVIRONMENTAL AND SOCIAL MANAGEMENT

5.1 ENVIRONMENTAL PERFORMANCE MEASUREMENT

This chapter provides a register of environmental risks and issues, which identifies mitigation and monitoring measures, as well as roles responsible. This register will be subject to regular review by the manager and updated when necessary.

The proponent will use this register to undertake monthly inspections to ensure the project is compliant with this EMP.

5.2 OBJECTIVES AND TARGETS

Environmental protection is the responsibility of management and if management is environmentally aware, it motivates all employees and their associated business partners, customers and suppliers to think and act in a more environmentally responsible manner. Environmental objectives and targets have been developed so that activities on the proposed site can minimise potential impacts on the environment, as far as reasonably practicable.

Environmental objectives for the project are as follows:

- Zero pollution incidents;
- Sustainable resource use (water and energy);
- Application of the waste management hierarchy;
- A safe working environment for employees; and
- Use natural resources effectively and efficiently.

5.3 REGISTER OF ENVIRONMENTAL RISKS AND ISSUES

An environmental review of the proposed project has been completed to identify all the commitments and agreements made within the environmental scoping report. From this, a schedule of environmental commitments and risks has been produced (Table 3), which details deliverables including measures identified for the prevention of pollution or damage to the environment during the project's lifetime.

Table 3 provides a register of environmental risks and issues, which identifies mitigation and monitoring measures, as well as the responsible person. This register will be subject to regular review by the manager and updated when necessary. The general manager will use this register to undertake monthly inspections to ensure the project is compliant with this EMP.

TABLE 3 - ENVIRONMENTAL RISKS AND ISSUES, AND MITIGATION AND MONITORING MEASURES

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>General construction and operational activities</p>	<p>Charcoal dust causing air pollution and possibly affecting employee health.</p>	<p>The proponent will utilise an industrial dust collector system to capture and handle charcoal dust emissions within the processing facility during normal operations. The ventilation/dust control system was specifically designed for the site by engineers (The system will be built by Plumbco and consist of an industrial extraction fan and collector bin with filter socks).</p> <p>To minimise the further potential for charcoal dust generation the following management measures should be implemented, as required:</p> <ul style="list-style-type: none"> – Maintain the dust collector system to reduce the risk of breakdowns. – Monitor air quality (depositional dust fallout) to detect areas of concern by implementing dust monitoring stations at strategic locations around the facility. – Vehicles must adhere to speed limits to avoid producing excessive dust. – Vehicles and machinery should be maintained to limit exhaust fume emissions. – Use surfaces that minimise dust accumulation and facilitate effective cleaning. – Where an effect is profound, ensure dust suppression measures are in place. – Employees to use and wear the appropriate PPE. 	<ul style="list-style-type: none"> – Daily 	<ul style="list-style-type: none"> – Foreman

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>Noise nuisances may be felt within and surrounding the facility, are due to the expected operational activities.</p>	<ul style="list-style-type: none"> – Ensure noise levels are maintained within the International Labour Organisation (ILO) occupational exposure limit of 85 dB. – Ensure noise levels are maintained within the SANS standard for environmental noise, which is 70 dB (outdoors) and 60 dB (indoors) in an industrial district. – Avoid noise-generating activities that could impact other users of the area by ensuring noisy activities occur indoors; avoid hammering on metal that generates intermittent noise especially at night, and ensure appropriate measures are put in place to rectify noise complaints should they occur. – Avoid excessive noise-generating activities at night if the facility is to operate on a 24-hour cycle; and – Ensure that procedures for receiving complaints from nearby land users or residents to be in place and responded to timeously. 	<ul style="list-style-type: none"> – Daily 	<ul style="list-style-type: none"> – General manager/ Foreman/ Employees
	<p>Excessive sound-generating machinery can result in nuisance for workers and neighbours while prolonged exposure to high levels of sound waves may</p>	<ul style="list-style-type: none"> – Ensure noise levels and the length of exposure to loud noise is maintained within the International Labour Organisation’s (ILO) occupational exposure levels of 85 dB (Warning Limit) and a danger limit of 90 dB. – Ensure that machines are maintained regularly; and – Hearing protection should be provided to personnel. – Ensure selective occupational medical check-ups are performed on personnel on an annual basis. 	<ul style="list-style-type: none"> – Daily 	<ul style="list-style-type: none"> – Foreman

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	cause long term loss of hearing			
	Activities involving the use of mechanical equipment may cause injury to personnel	<ul style="list-style-type: none"> – Safety induction training sessions should be given to all technicians and field staff before commencement of their shifts; – Risk identification and suitable prevention measures should be employed within the facility area to eliminate potential impacts; – Routine medical checks to be conducted on personnel to ascertain fitness for work levels; – Frequent maintenance of all equipment and daily inspections done; and – No unauthorized use of equipment is allowed. – In the unlikely event of a death occurring on-site from occupational negligence or otherwise from a "freak accident event", all machinery should be shut down and the area secured and removing all personnel from the scene. – A root cause analysis into the event should be undertaken as soon as practicably possible; and – Counselling should be provided to the witnesses and other personnel members who may have been impacted by the event. 	– Daily/Monthly	– Foreman
	Fire at the facility	<ul style="list-style-type: none"> – Development of a fire management system through the process of risk identification and assessment. – Identify and signpost dedicated assembly points around the facility. – Operational risk assessment for all hot works. – Developing site-specific work procedures as part of the fire 	– Daily	– Foreman

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<p>management system.</p> <ul style="list-style-type: none"> – Induction on fire prevention and toolbox talks. – Control and reduce the potential risk of fire by segregating and safe storage of flammable materials. – Avoid potential sources of ignition for example, by prohibiting smoking in and around the facility. – Perform hot work in a safe location, or with fire, hazards removed or covered. – Ensure suitable fire-extinguishing equipment is accessed immediately and conveniently whenever necessary. This can include pails of water, buckets of sand, or portable extinguishers. – Enforce safety procedures for hot work permits and ensure explosion hazards associated with hot work activity are recognized and mitigated. – The dust explosion class for charcoal dust is characterised by the K_{st} dust deflagration index as “St 1” which is a “weak explosion”. Therefore: – Adequate communication of hazard information is essential to ensuring that both employer and employees are aware of dust-related hazards and measures that can be taken to prevent dust explosions. – Charcoal dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released abruptly into the atmosphere in sufficient concentration and ignited. – Avoid dispersal of charcoal dust in the air (i.e., clearing dust surfaces with high velocity compressed air from surfaces should not be allowed). – Ensure that the dust-handling systems (such as exhaust ducts, dust 		

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<p>collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment) and are maintained regularly.</p> <ul style="list-style-type: none"> – Ensure key personnel are trained and equipped on-site to handle normal and emergency breakdowns of the dust collector system. 		
<p>Emergency Incidents</p>	<p>Soil and water contamination due to inadequate control or accidental release of hazardous substances on site</p>	<p>Since there is the potential to store approximately 2000 litres of diesel on-site, the following should be taken into consideration.</p> <p>Storage</p> <ul style="list-style-type: none"> – Separate hazardous and non-hazardous chemicals from each other; – Label chemicals appropriately; – Chemicals with different hazard symbols should not be stored together - clear guidance on the compatibility of different chemicals can be obtained from the Materials Safety Data Sheets (MSDS) which should be readily available; – Store chemicals in a dedicated, enclosed, and secure facility with a roof and a paved/concrete floor. – Diesel tanks should be completely contained within secondary containment such as bunding. – Consider the feasibility of substituting hazardous chemicals with less hazardous alternatives. – Fuels, lubricants, and chemicals are to be stored within appropriately sized, impermeable bunds or trays with a capacity not less than 110% of the total volume of products stored. 	<p>Daily</p>	<p>All staff members</p>

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<p>Spills</p> <p>The spill kits with the following items as a minimum should be made available on site:</p> <ul style="list-style-type: none"> – Absorbent materials; – Shovels; – Heavy-duty plastic bags; – Protective clothing (e.g., gloves and overalls); – Major servicing of equipment shall be undertaken offsite or within appropriately equipped workshops; – For small repairs and required maintenance activities all reasonable precautions to avoid oil and fuel spills must be taken (e.g., spill trays, impervious sheets); – Provision of adequate and frequent training on spill management, spill response and refuelling must be provided to all onsite staff; – No refuelling is to take place within 50 meters of groundwater boreholes, surface water bodies or streams; – Vehicles and machinery are to be regularly serviced to minimise oil and fuel leaks, and – All major petroleum product spills (spill of more than 200 litres per spill) should be reported to the Ministry of Mines and Energy (MME) on Form PP/11 titled “Reporting of major petroleum product spill”. <p>The following points, therefore, apply to all areas on the site:</p>		

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<ul style="list-style-type: none"> – Assess the situation for potential hazards; – Do not come into contact with the spilled substance until it has been characterised and necessary personal protective equipment (PPE) is provided; and – Isolate the area as required. <p>The following measures are to be implemented in response to a spill:</p> <ul style="list-style-type: none"> – Spills are to be stopped at the source as soon as possible (e.g., close valve or upright drum); – Spilt material is to be contained to the smallest area possible using a combination of absorbent material, earthen bunds or other containment methods; – Spilt material is to be recovered as soon as possible using appropriate equipment. In most cases, it will be necessary to excavate the underlying soils until clean soils are encountered; – All contaminated materials recovered after a spill, including soils, absorbent pads and sawdust, are to be disposed of at an appropriately licenced facility; – A written incident report must be submitted to the general manager. 		
	Environmental pollution (littering and poor storage of solid waste)	<ul style="list-style-type: none"> – Waste management should be handled in accordance with the International Finance Corporation (IFC) standards as follows: – Implement a waste management plan (from “cradle to grave” methodology) covering all aspects of waste generated on-site. 	– Daily/Weekly	– All staff members

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
		<ul style="list-style-type: none"> – Training and toolbox talk about the importance of waste management. – Ensure a high standard of housekeeping across the site. – Solid waste shall be stored in an appointed area in covered, tip-proof metal drums/skips for collection and disposal to an approved waste management site. – The waste storage areas shall always be kept clean and tidy. – Storage of domestic waste on site may result in the attraction of unwanted scavengers and should be removed as soon as it is feasible. – Implement the waste management hierarchy across the site: Avoid, reuse, recycle, then the disposal. – Return packaging of hazardous and non-hazardous materials (wherever possible), such as empty bags for reuse. – Solid wastes should be deposited/emptied on a regular basis. – See the material safety data sheets available from suppliers for disposal of contaminated products and empty containers. – Liaise with the governing body (municipality/council) regarding the waste and handling of hazardous waste. <p>Hydrocarbon and chemical contaminated solids have the potential to cause contamination to the soil, ground and or surface water, thus correct storage and disposal methods are required.</p>		

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Waste management	Possible sewage discharge runs the risk of pathogen /diseases transmissions and odours	<ul style="list-style-type: none"> – Ensure toilets are always clean and dry. – Provide adequate sanitary facilities, including clean water, soap, disposable paper towels. – Ensure suitable personal protective equipment that may include waterproof/abrasion-resistant gloves, footwear, eye, and respiratory protection. – Face visors are particularly effective against splashes when working with sewage. – Recycle wastewater, where possible. – Install an impermeable hardstand in areas of high-risk contamination to prevent ground infiltration by pollutants. – Segregation of wastewater (domestic and industrial effluent); and – The monitoring of wastewater discharges should be conducted regularly. 	– Daily	– Foreman

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Groundwater and surface water pollution</p>	<p>Possible nutrient enrichment of groundwater due to leakage of sewage into the groundwater (or possibility of reaching the nearby river).</p>	<ul style="list-style-type: none"> - The sewage system needs to well maintained at all times. - Need to carefully investigate the sewage system regularly to look for leakages. - The sewage system needs to be cleaned regularly. - The Outjo Municipality will be responsible for the cleaning of the sewerage tanks every week, or more frequently if needed - Groundwater needs to be monitored and tested to ensure that there is no contamination. 	<ul style="list-style-type: none"> - Daily/weekly 	<ul style="list-style-type: none"> - General manager/ Foreman/ Employees

TASK ACTIVITY/ EQUIPMENT	IMPACT IDENTIFIED	MITIGATION CONTROL MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Soil Erosion	Potential soil erosion during heavy precipitation or strong winds on-site.	<ul style="list-style-type: none"> – Indigenous vegetation could be planted to prevent erosion; – Rock beds could also be used to prevent erosion on the gentle slopes around the buildings; and – An erosion control plan should be developed and implemented on-site due to the relief of the site and the vegetation that has been cleared. 	– Monthly	– General manager/Proponent
Job creation, skills development and business opportunities	Beneficial socio-economic impacts on a local and regional scale	<ul style="list-style-type: none"> – Maximise local employment and local business opportunities; – Enhance the use of local labour and local skills as far as reasonably possible; and – Ensure that goods and services are sourced from the local and regional economy as far as reasonably possible. 	– Monthly	– General manager/Proponent

6 DECOMMISSIONING

In the event that the facility is closed (and if ownership is not transferred), the proponent and the Outjo Municipality should mutually agree on the way ahead for the site and the buildings on-site. If the Outjo Municipality has no use or plan for the site or buildings on-site the proponent will be responsible to remove all equipment, machinery, products, chemicals, fuel or any other materials from the site. If infrastructure is removed during decommissioning it is recommended that the proponent implement a rehabilitation plan for the site, to ensure that the site is safe and that no further degradation to the site can occur.

7 IMPLEMENTATION OF THE EMP

The charcoal and briquette processing and storage facility construction and operation work will be carried out in compliance with the relevant regulations. No significant impacts are anticipated for the activities that have been identified and management and mitigation measures are in place for potential risks.

This EMP:

- A. Has been prepared according to a contract with the proponent;
- B. Has been prepared based on information provided to ECC up to May 2021;
- C. Is for the sole use of the proponent, for the sole purpose of an EMP;
- D. Must not be used (1) by any person other than the proponent or (2) for a purpose other than an EMP; and
- E. Must not be copied without the prior written permission of ECC.

ECC has prepared the EMP based on information provided by the proponent, and the environmental scoping report conducted for the Nexus charcoal processing facility.

APPENDIX A – OUTJO MUNICIPALITY CONSENT LETTER

Municipality of Outjo

7 Hage G. Geingob Ave. P.O. Box 51, Outjo, Namibia

Tel. +264 - 67 - 313013 / Fax: +264 - 67 - 313065

E-mail: info@outjomun.com.na



Reference: 7/2/3/1

Date: 01 June 2021

Nexus group Holdings (Pty) Ltd
OUTJO

Dear Sir

RE: PERMISSION TO FACILITATE A CHARCOAL PACKING PLANT

The Municipal Council of Outjo hereby grant permission to Nexus Group Holdings (Pty) Ltd to operate a charcoal sifting and packing plant on erf 1113 of the Western Industrial area Outjo extension six.

You faithfully



JOSEF ABEL /URIB
Chief Executive Officer



All official correspondence must be addressed to the Chief Executive Officer