UPDATED ENVIRONMENTAL MANAGEMENT PLAN (EMP)

on the Labour Act, 6 of 1992 as amended by the Labour Act, 11 of 2007 and Section 58 of the Environmental Management Act, 7 of 2007

Project No: 2021/023/C-R3

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STATEMENT PAGE

National Environmental Health Consultants CC (NEHC CC) is an Approved Inspection Authority in terms of the Occupational Health and Safety Act (85 of 1993). (Certificate No.: CI 057 0H) SA and A.I.A 23/09 Namibia, **Labour Act, 1992 (Act 6 of 1992)** as amended under the **Labour Act 2007, (Act 11 of 2007).** And registered at the Allied Health professions Council of Namibia (HPCNA) as an Environmental Health Practitioner Reg. No.: EPH00901 under the **Allied Health Professions Act, 2004 (Act. 7 of 2004).**

J. Cornelissen conducted this updated Environmental Management Plan on behalf of **NEHC CC** and hereby declares that the results/findings given in the report are a true reflection of the conditions encountered during the survey/observations on site.

Where relevant published and validated methods exist, they are always used in preference to novel methods. If a novel method is applied, a summary of validation and reference to the internal Standard Operating Procedure(s) is provided.

Whilst recommendations offered in this report are made in good faith and every effort is made to ensure the professional integrity thereof, the final responsibility lies with the client to ensure the correctness and suitability of these recommendations, prior to implementation thereof. **NEHC CC** or its officers shall in no way be liable for any losses suffered by the client as a result of the implementation of such recommendations.

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Possible scenarios shall be reported in time to be prevented and if these may arise through the course of projects, they shall also be reported.

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22nd of January 2025
EMP REPORT DATE

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EXECUTIVE SUMMARY

National Environmental Health Consultants CC (NEHC CC) was commissioned and instructed by **Coastal Precast and Paving CC – Walvis Bay,** to assist them with the undertaking of, and with the conduction of an Updated Environmental Management Plan, for their existing quarrying and mining operations, which are being conducted at their site, situated within the municipal boundaries of the town of Walvis Bay, located in the Erongo Region.

Against the current legislative backdrop pertaining to environmental matters, and affairs, framed by the Environmental Management Act, 7 of 2007, the Namibian Environmental Assessment Policy, as well as the Environmental Impact Assessment Regulations of 2012, **Coastal Precast and Paving CC – Walvis Bay** was statutorily obliged to apply for an Environmental Clearance Certificate, prior to the commencement of the operation and conduction of their existing mining and quarrying operations within the municipal boundaries of the town of Walvis Bay.

The initial Environmental Clearance Certificate was approved, and issued by the Ministry of Environment, Forestry and Tourism in 2012. In keeping with the statutory provisions relating to Environmental Clearance Certificates, **Coastal Precast and Paving CC – Walvis Bay** had this updated EMP report drafted, and prepared, in order to assist them with their application for the renewal of their existing Environmental Clearance Certificate.

For detailed findings and recommendations please see 6 monthly environmental inspections reports.

Glossary and Abbreviations

ACRONYM	*DESCRIPTION*
CC	Close Corporation
CEs	Consulting Engineers
CO	Contraction Phase
CLO:	Community Liaison Officer
CPP:	Coastal Precast and Paving CC
DS	Design & Planning Phase
DE	Decommissioning Phase
ECO	Environmental Control Officer
EMP	Environmental Management Plan
EMPr	Environmental Management Programme
ISO	International Organisation for Standardisation
MEFT	Ministry of Environment, Forestry, and Tourism
MAWF	Ministry of Agriculture, Water and Forestry
MSDS	Material Safety Data Sheets
OHASA	Occupational Health and Safety Regulations "Namibia"
OP	Operational Phase
PM	Project Manager (Developer Representative)
PPE	Personal Protective Equipment
RA	*Resident Architect*
DEA	Directorate of Environmental Affairs
RE	Resident Engineer
ELO	*The Environmental Liaison Officer*
VOC's	Vapours

Definitions:

Environment: Surroundings in which an organization operates, including air, water, fauna, flora, natural resources, humans, and their interrelations.

General waste: Waste that may be disposed of without prior treatment. May be disposed of at a municipal dumpsite.

Hazardous waste: An inorganic or organic element or compound that, because of it's toxicological, physical, chemical or persistency properties may exercise detrimental, acute or chronic impacts on human health and the environment. This can be generated from a variety of activities and may take the form of liquid, sludge, gas or solid. Hazardous waste can also be defined to be any waste that directly or indirectly represents a threat to human health or to the environment.

Recyclable Waste: Hazardous or general waste that has the potential to be recycled.

Waste: Any matter gaseous, liquid, and solid or any combination thereof designated as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity.

Waste Stream: The cycle of a specific waste from the point of origin up to disposal (cradle to grave concept).

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1. INTRODUCTION

The project proponent, **Coastal Precast and Paving CC – Walvis Bay** has appointed National Environmental Health Consultants CC (NEHC CC) as the independent consultant, to assist them with the completion of, and the updating of their Environmental Management Plan (EMP.)

The purpose of an EMP is to guide the current operational phase of the existing mining and quarrying operations and activities, conducted by **Coastal Precast and Paving CC – Walvis Bay** at their site, located within the municipal boundaries of the town of Walvis Bay. This is done to eliminate or mitigate the various possible risks to the environment and its surrounding inhabitants during this phase. And it will subsequently ensure that minimal damage will occur to these areas during the operational phase of the existing mining and quarrying operations, based on the mitigation measures identified for inclusion in the EMP, as a result of the Environmental Scoping Process, which was concluded in 2012.

The ultimate goal of the EMP is to meet social, economic, and biophysical objectives to such an extent, that the overall product of the activity, will not result in a net negative impact. The economic benefit of the existing mining and quarrying operations, located within the municipal boundaries of the town of Walvis Bay, should outweigh the negative environmental impacts addressed during this assessment.

1.1 Locality

Figure 1: Google Earth Photo depiction of the Coastal Precast and Paving CC – Walvis Bay mining and quarrying site.

The existing **Coastal Precast and Paving CC – Walvis Bay** mining and quarrying project, is situated approximately 17km east of the town of Walvis Bay, and as such, is situated within the municipal boundaries of the town of Walvis Bay, located in the Erongo Region of Namibia. The quarrying and mining site is, furthermore, located approximately 5km southeast of Rooikop Airport, and roughly 40km south of Swakopmund. The NAMPOWER Ruby Substation, is situated approximately 2km from the **Coastal Precast and Paving CC – Walvis Bay** quarry.

The **Coastal Precast and Paving CC – Walvis Bay** quarry and mining site covers an extent of 540 000 m^2, and includes three (3) mining claims, all of which are registered under Non-Exclusive Prospecting License No: 6352. These three (3) mining claims together with their extents are set out in Table 1 hereinbelow:

Table 1: Coastal Precast and Paving CC Mining Claims registered under Non-Exclusive Prospecting License No: 6352

Mining Claim:	**Extent:**
Mining Claim 68799	180 000m^2
Mining Claim 68800	180 000m^2
Mining Claim 68801	180 000m^2
	Total: 540 000 m^2

1.2 Project Background Information

As its main activities, **Coastal Precast and Paving CC – Walvis Bay** comprises of a conventional load and haul open pit mining operation, processing plant, mine residue disposal facilities, with supporting infrastructure and services. The quarrying and mining operations and activities conducted and performed by **Coastal Precast and Paving CC – Walvis Bay** are regarded as a listed activity in terms of the Environmental Management Act, 7 of 2007. Therefore, **Coastal Precast and Paving CC – Walvis Bay** must obtain an Environmental Clearance Certificate in order to conduct their mining and quarrying operations and activities.

Coastal Precast and Paving CC – Walvis Bay is a wholly owned Namibian Company based in Walvis Bay, within the Erongo Region of Namibia, whilst their quarry, which is the subject of this updated Environmental Management Plan, is situated 17km east of Walvis Bay. **Coastal Precast and Paving CC – Walvis Bay** also has branches in Swakopmund, Henties Bay, and Arandis, and supplies building sand, dune sand, filling crusher stone, ready-mix concrete, paver bricks, and precast products to their customers and clients in Namibia, mainly throughout the Erongo Region.

As mentioned hereinabove, **Coastal Precast and Paving CC – Walvis Bay** is in possession of a Non-Exclusive Prospecting License, with Non-Exclusive Prospecting License No: 6352, and have registered three (3) mining claims under this Non-Exclusive Prospecting License. For ease of reference, these three (3) mining claims are described as follows:

- Mining Claim No: 68799 which covers an extent of 180 000m^2,
- Mining Claim No: 68800 which covers an extent of 180 000m^2, and
- Mining Claim No: 68801 which covers an extent of 180 000m^2.

For the sake of brevity Mining Claims 68799, 68800, and 68801, are hereinafter referred to as the 'Old Mining Claims'.

The area covered by the Old Mining Claims is used for mining and quarrying purposes, and to produce various grades of gravel for the building industry in Namibia. Dolomite stone is also mined at the area covered by the Old Mining Claims, which is then crushed at the quarry.

This Updated Environmental Management Plan (EMP) addresses the management of Environmental Impacts related to the existing mining and quarrying site of **Coastal Precast and Paving CC – Walvis Bay**. The documents should be used for managing, mitigating, and monitoring the environmental impacts associated with the decommissioning of the site as identified during the Environmental Scoping Report conducted on the site, and completed in 2012.

The Environmental Scoping Report will be valuable as a reference source for understanding this EMP and for placing it into perspective.

A brief overview of the Environmental Clearance Certificates issued to, held by, and applied for by **Coastal Precast and Paving CC – Walvis Bay** is set out hereinbelow:

The first Environmental Clearance Certificate was issued and dated 20th of April 2012 for "Proposed Quarry Site Walvis Bay Enclave".

The second Environmental Clearance Certificate was issued and dated 10th of April 2015 "Existing Quarry Operations, Erongo Region" – Renewal of Environmental Clearance.

The third Environmental Clearance Certificate was issued and dated 07th of May 2018 for "Operations existing Quarry Site Walvis Bay Enclave, Erongo Region".

Coastal Precast and Paving CC – Walvis Bay is currently applying for the renewal of their existing Environmental Clearance Certificate.

1.3 Coastal Precast and Paving CC Staff Complement

Coastal Precast and Paving CC – Walvis Bay currently has a staff complement of 37 (thirty-seven) quarry employees, working on and at the mining and quarrying site. However, some of the administrative functions and duties are jointly undertaken and shared with **Coastal Precast and Paving CC – Walvis Bay's** office division, which is situated in the town of Walvis Bay itself, which thus increases **Coastal Precast and Paving CC – Walvis Bay's** staff complement to 130 (one hundred and thirty) employees.

Organogram CPP – Quarry

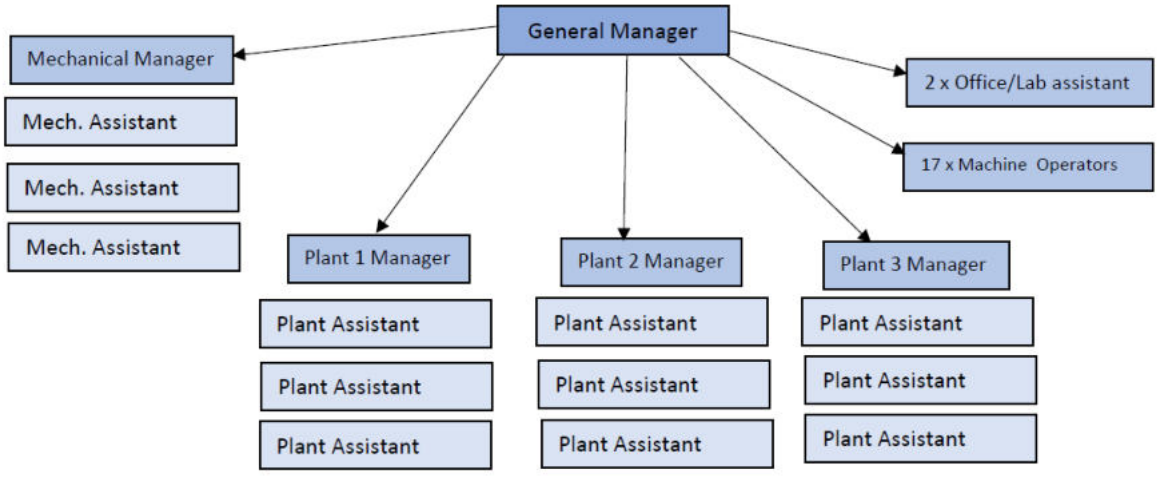

Figure 2: Depicts the organogram of Coastal Precast and Paving CC – Walvis Bay quarry.

1.4 Coastal Precast and Paving CC Quarry Activities

The key findings of the Environmental Impact Assessment study conducted herein, dated January 2012, yielded that the project can be implemented, provided that the recommended control measures, as contained and encapsulated therein, are enacted, and adequately maintained. It should, however, be noted that the operations and activities of **Coastal Precast and Paving CC – Walvis Bay** is an existing project, and constitutes existing mining and quarrying operations and

activities, and that this Updated Environmental Management Plan (EMP) has been merely prepared and drafted in support of their application for the renewal of their existing and current Environmental Clearance Certificate.

The following equipment is currently being utilized on the quarrying site:

- 1 x 650kva Volvo Gen-set,
- 1 x 500kva Cummins Gen-set,
- 1 x 450kva Scania Gen-set, and
- 3 x Static Crushers, with the crushing capacity of 600 tonnes per day.

Table 2 below indicates the operations and activities which are being performed at **Coastal Precast and Paving CC – Walvis Bay** quarrying site, and the correlating equipment which are being utilized in the performance of said operations and activities:

Table 2: Operations and Activities of Coastal Precast and Paving CC – Walvis Bay

Operation	Equipment
Drilling and Blasting Operation	Air compressor and hoses Generators Core Drill, rods, and bits Jackhammers, taper rods, and bits
Blasting	As needed
Earth moving equipment, loading, and hauling	2 x Excavators 3 x Front end loaders 1 x 962 Caterpillar
Crushing	Primary Crusher Secondary Cursing
Screening	Vibration Screens Conveyors
Stock Piling	Earth moving equipment, loading, and hauling
Weighbridge	Trucks - loading and hauling
Transportation	Trucks - loading and hauling

Table 3 below, illustrates the infrastructure and services being utilized by the **Coastal Precast and Paving CC – Walvis Bay** quarrying site.

Table 3: Services and Infrastructure utilized by Coastal Precast and Paving CC – Walvis Bay

Access to the project area	Via the existing gravel road used by CPP and NDF.
Wastewater and Effluent Treatment	Existing septic French drain infrastructure present at the quarry.
Solid Waste	Stored in containers that will be covered and kept in fenced off area, solid waste will be disposed of at regular basis at Walvis Bay landfill site.
Fresh Water	Existing water pipeline infrastructure exists at the quarry.

1.5 Objectives of the EMP

The primary objectives of the EMP are as follows:

- To describe action plans for achieving the mitigation measures described in the Environmental Scoping Report; and

- To indicate responsibilities regarding the implementation of these action plans.

The Environmental Scoping Report was completed in 2012, where-after **Coastal Precast and Paving CC – Walvis Bay** was issued with an Environmental Clearance Certificate (ECC) by the Ministry of Environment, Forestry, and Tourism (MEFT). This updated EMP is for the renewal of **Coastal Precast and Paving CC – Walvis Bay's** existing ECC.

1.6 Key Characteristics of the report

Table 4: Shows an overview of the project.

Element	Description
Proponent	Coastal Precast and Paving CC – Walvis Bay. Mr. Simon van Zyl
Name of the site	Coastal Precast and Paving CC – Walvis Bay Quarry
Property Description	Coastal Precast and Paving CC – Walvis Bay Quarry and Mining Site
Site Coordinates	S23°1'15.30" E14°39'52.14" S23°1'11.73" E14°40'1.95" S23°1'8.52" E14°40'10.36"
Extent of the site	540 000m^2
Current capacity of the site	Existing mining and quarrying site

1.7 COMPLIANCE TO REGULATIONS

Coastal Precast and Paving CC – Walvis Bay will need to comply with the following legislation:

- The Constitution of the Republic of Namibia, 1990,
- Namibia's Green Plan,
- Vision 2030: Third National Development Plan of Namibia, 2006/7 – 20011/12,
- Environmental Assessment Policy, 1995,
- Draft Wetland Policy of 2003,
- The National Environmental Health Policy,
- GOVERNMENT GAZETTE OF THE REPUBLIC OF NAMIBIA, Government NOTICES, dated 06 February 2012 number 4878.
- Environmental Management Act, 7 of 2007,
- The Water Resources Management Act, 24 of 2004,
- Labour Act, 6 of 1992: Regulations for the Health and Safety of Employees at Work,
- Labour Act, 11 of 2007,
- Nature Conservation Ordinance, 4 of 1975, as amended in 1996,
- Atmospheric Pollution Prevention Ordinance, 11 of 1976,
- Soil Conservation Act, 76 of 1969,
- Legislation related to effluent and waste-water disposal Model Drainage Regulations, 1996,
- Hazardous Substances Ordinance, 14 of 1974, and its amendments,
- Nature Conservation Ordinance Amendment Act, 5 of 1996,
- National Policy on Tourism for Namibia, 2008, and
- National Heritage Act, 27 of 2004.

1.8 Responsible Parties

1.8.1 Phases of the Project

The point of departure for any EMP, is to take a pro-active route by addressing and minimizing any potentially significant problem before it occurs. In particular this EMP deals with the current operational phase of the existing mining and quarrying site.

1.8.2 Roles and Responsibilities

Various role players have a range of responsibilities to perform during the operational phase and if any upgrades or construction take place on the existing mining and quarrying site:

1.8.2.1 Project Manager (PM) (Developer Representative)

If any upgrades or construction takes place on the existing mining and quarrying site, the PM will be responsible for the following:

- The PM will be responsible for ensuring that the development is implemented according to the requirements as set out in the EMP.
- The PM should ensure that sufficient resources are available to the other role players to efficiently perform their tasks in terms of the EMP.
- The PM must appoint an independent Environmental Control Officer (ECO) to ensure strict adherence to the EMP.

1.8.2.2 Resident Architect (RA)

If any upgrades or construction takes place on the existing mining and quarrying site, the RA will be responsible for the following:

- Only architects approved by the PM will be allowed to work on the project and will oversee the individual contracts between the owners of the entire site or portions thereof, and the contractors.

1.8.2.3 Environmental Control Officer (ECO)

If any upgrades or construction takes place on the existing mining and quarrying site, the ECO will be appointed at the start of the construction, and is mandated to do the following:

- Ensure that all contractors/subcontractors/employees are fully aware of their environmental responsibilities. This will take the form of an initial environmental awareness-training program, in which the requirements of this document will be explained.
- Any damage to the environment must be repaired as soon as possible after consultation between the ECO, the Consulting Engineer, and the relevant contractors.
- The ECO shall monitor their actions to ensure that the developer and/or contractor are adhering to all stipulations of the EMP.
- The ECO shall be responsible for monitoring the construction activities throughout the project by means of site visits and meetings. This should be documented as part of the site meeting minutes.
- The ECO must sign off, and the PM must certify that all clean-up and rehabilitation, or any remedial action required, are completed prior to transfer of properties.
- A post-construction environmental audit is to be conducted to ensure that all conditions in the EMP have been adhered to.

1.8.2.4 Auditing / Inspections

If any upgrades or construction takes place on the existing mining and quarrying site:

- The appointed ECO must on a regular basis should inspect the site where necessary.
- The PM or the contractor's representative will accompany the ECO to on-site inspections.

- The contractor will use the formats presented in this EMP to report to the PM in terms of compliance to this document.
- When, in the opinion of the ECO, a construction activity will result in environmental damage, the ECO will issue instructions to the contractor or the PM, who will in turn order the contractor, to halt the activity. Spot fines or penalties may be levied for non-compliance.

1.8.2.5 Method Statements

If any upgrades or construction takes place on the existing mining and quarrying site, construction method statements from the contractor will be required, for specific activities in sensitive environments on request of the Authorities or the ECO. All method statements will form part of the EMP documentation, and is subject to all the terms and conditions, as contained within the EMP document. For each instance wherein it is requested that the contractor submit a method statement to the satisfaction of the ECO, the format should clearly indicate the following:

- What - a brief description of the work to be undertaken;
- How - a detailed description of the process of work, methods, and materials;
- Where - a description / sketch map of the locality of work; and
- When - the sequencing (phases) of actions, with commencement date and completion date estimates.

The contractor must submit the method statement before any particular construction activity is due to start. Work may not commence until the method statement has been approved by the ECO.

1.8.2.6 Record Keeping

All records related to the implementation of this management plan must be kept together in an office where it is safe. Records should be kept for two years and must be available for scrutiny by the relevant Authority, at any time.

1.8.2.7 Resident Engineer (RE)

If any upgrades or construction takes place on the existing mining and quarrying site, a RE acts as a direct, on-site resource for all technical aspects related to the development. He/she is available on the construction site at all times, overseeing all phases of the construction activities. He/she will liaise with the ECO where required to ensure the effective implementation of the EMP.

1.8.2.8 Consulting Engineers (CEs)

If any upgrades or construction takes place on the existing mining and quarrying site, the consulting engineers will be involved during the planning, design, and construction period for such upgrades and construction. They are not available on site at all times but are part of the specialist team during the final design and construction stages to advise on appropriate environmental management and mitigation.

1.8.3 Standards

If any upgrades or construction takes place on the existing mining and quarrying site:

- The ECO will keep written and photographic records of the site and its surroundings before, after, and during construction on the site.
- The contractor will keep records of construction activities, instructions received from the ECO and the PM concerning environmental matters.

- The ECO will keep records of cases of non-compliance and remedial actions taken.
- Where no quantitative standards are applicable, visual standards will apply.
- The contractor will rehabilitate the site to a condition acceptable to the ECO and respond timeously to any complaints and instructions regarding construction activities.

1.8.4 EMP Objectives

This EMP must be used during the current operational phase of the existing mining and quarrying site.
The objectives of this plan are to:

- Ensure all environmental safeguards are carried out correctly.
- Manage site activities effectively and coordinate with other players in the project.
- Minimize adverse impacts on the environment.
- Ensure that environmental mitigation measures are in place from the start of the project.
- Minimize disruption to fauna and flora and neighbouring landowners / communities.
- Monitor the project.

1.8.5 EMP Context

This EMP fits into the overall planning process of the project and should be implemented by the developer as soon as the Authorities have approved it. A copy of the EMP should always be available on site.

There are at least 2 role players participating in the environmental management of the site, namely:

- **Coastal Precast and Paving CC – Walvis Bay**; and
- Service Providers.

This EMP must be attached as an Appendix to service provider tender documents and referred to in the tender documents as *special conditions of tender.*

The ultimate responsibility for the implementation of the EMP lies with **Coastal Precast and Paving CC – Walvis Bay.** This responsibility, in some instances may be delegated to contractors in the employ of **Coastal Precast and Paving CC – Walvis Bay** for practical purposes, but **Coastal Precast and Paving CC – Walvis Bay** will retain legal accountability. In that capacity, **Coastal Precast and Paving CC – Walvis Bay** should appoint duly qualified personnel, and delegate the responsibility to ensure the implementation, and management of the EMP, and who will:

- Know the contents and implications of the Environmental Scoping Report, and monitor the implementations of the Environmental Scoping Report's findings, using the EMP.
- Guide, advise, and consult the contractors on environmental issues during the decommissioning of the service station.
- Revise the EMP as required and inform the relevant parties of the changes.
- Protect the environment.

The responsibility of the Service Providers and Contractors during the decommissioning of the service station is to:

- Ensure that all requirements of the EMP are communicated to, understood, and followed by all persons working on the project who may have an impact on the environment.
- Ensure that a procedure exists for reporting incidents and resolving any problems rapidly.
- Keep good records relating to the compliance/non-compliance with the conditions of the authorization.
- These records must be made available to the relevant authority within seven (7) days of a written request to do so.

2. PHASES OF THE PROJECT

The aim of this Environmental Management Programme (EMPr) is to derive mitigation measures that should be made binding, when additional contraction activities result in the appointment of contractors on site, as well as measures that should be implemented during the current operational phase.

The purpose of the EMPr is to provide solutions to problems before they occur. If adhered to, this EMPr should limit corrective measures required during the current operational phase of the existing mining and quarrying site.

The EMPr deals with the following phases as detailed below:

2.1 The Planning Phase

This is an existing mining and quarrying site, thus there will be no planning phase.

2.2 Pre-construction Phase

This is an existing mining and quarrying site, thus there will be no Pre-construction Phase.

2.3 The Construction Phase

This is an existing mining and quarrying site, thus there will be no construction phase.

If any upgrades or construction takes place on the existing mining and quarrying site, the majority of the impacts during this phase will have a direct and immediate effect (e.g., pollution, noise and dust). Continual monitoring of the site during the construction phase will help in identifying impacts as they occur.

2.4 The Operational Phase

This is an existing mining and quarrying site thus, this updated EMP report mainly refers to the current operational phase. Potential environmental impacts arising during the current operational phase can be minimized, if the EMP is followed, and adhered to.

3. ANTICIPATED ENVIRONMENTAL IMPACTS

The anticipated adverse impacts, requiring mitigation relating to the biophysical, and socio-economic environment for the current operational phase of the existing mining and quarrying site are listed below.

3.1 Operational Phase - Adverse Impacts

- Visual Intrusion and Light Pollution,
- Traffic,
- Noise,
- Atmospheric Pollution and Odours,
- Safety and Security,
- Soil and Groundwater Contamination,
- Risks of Fires and Explosions, and
- Waste Generation and Disposal.

4. RESPONSIBILITIES

The Environmental Management Programme (EMPr) specifies the responsibilities of the role players, as follows:

- ***The Developer:*** The Developer remains ultimately responsible for ensuring that the activities and operations are implemented according to the requirements of the EMPr throughout all the phases of the project. This includes the current operational phase, and if any upgrades or construction takes place on the existing mining and quarrying site.

- ***The Environmental Control Officer (ECO):*** The ECO is appointed by the developer as an independent monitor of the implementation and management of the EMPr i.e., independent of the developer and contractor. The ECO is responsible for providing feedback on potential environmental problems associated with the development. The ECO has the right to enter the site, and to do monitoring and auditing at any time, subject to compliance with health and safety requirements applicable to the site (e.g., wearing of protective head gear and safety boots). The ECO will be responsible for a minimum of monthly site audits, followed by an environmental control report, that will detail the status of environmental compliance, and highlight mitigation. The ECO will be responsible for liaising with authorities, such as MEFT. The ECO must submit monthly environmental audit reports to the authorities. The ECO must indicate the necessary corrective action measures to eliminate the cause of the non-conformances. The ECO is also responsible for liaising with contractors, informing them of any decisions that are taken, concerning environmental management during the construction phase. This would also include informing the contractors of the necessary corrective actions to be taken.

- ***Site Agent:*** The Site Agent is usually a site engineer or project manager who is the developer's most senior representative on site, and who coordinates activities on site. The site agent must follow the advice of the ECO with regards to environmental management, and ensure that the contractor abides by all requirements, as stipulated by the ECO.

- ***Contractor:*** The contractor as the developer's agent on site, is bound by the Environmental Clearance Certificate, and the EMPr conditions through his/her contract with the developer and is responsible for ensuring that conditions of the EMPr are strictly adhered to, and complied with, at all times. The contractor must comply with all orders (whether verbal or written) as given by the ECO, the project manager or site agent in terms of the EMPr.

- ***The Environmental Liaison Officer (ELO):*** The Contractor shall submit to the Site Agent a nominated representative of the Contractor as an ELO, to assist with day-to-day monitoring of the construction activities for the contract. Issues raised by the ECO will be routed to the ELO, for the contractor's attention. The ELO shall be permanently on site during the construction phase to ensure daily environmental compliance with the EMPr. The ELO should preferably be a senior, and respected member of the construction crew, as past experience has revealed that ELO's that can relate to the workforce are most effective for information transfer and ensuring compliance with the EMPr. The ELO will report directly to the ECO regarding environmental compliance. The site audits undertaken by the ECO will be undertaken in conjunction with the ELO. The ECO will point out areas of concern, and the ELO will be responsible for ensuring day-to-day compliance with the EMPr. Should any emergencies arise, the ELO will alert the ECO who will take action. There shall be an approved ELO on site at all times. Before the Contractor commences with each construction activity, the ELO shall give to the site agent, a written statement setting out the following:

    - The type of construction activity.

- Locality where the activity will take place.
- Identification of impacts that might result from the activity.
- Identification of activities or aspects that may cause an impact.
- Methodology for impact prevention for each activity or aspect.
- Emergency/disaster incident and reaction procedures (need to be demonstrated).
- Treatment and continued maintenance of impacted environment.

- ***Community Liaison Officer (CLO):*** The contractor must appoint a CLO to act as a point of contact between the contracting team, and the community that will be affected by the construction activities. Complaints from the community about construction activities must be channelled through the CLO. The CLO's responsibility is to liaise with the Interested and Affected Parties.

5. ENVIRONMENTAL AWARENESS TRAINING

Coastal Precast and Paving CC – Walvis Bay has the responsibility to ensure that adequate environmental awareness training is provided to all the personnel on-site. All the employees should receive an induction presentation on the importance and implications of the Environmental Management Plan. Additionally, it is also recommended that health and safety awareness training be provided to personnel during the operational phase of the project. It is imperative that records of all training provided by **Coastal Precast and Paving CC – Walvis Bay** be kept, stored, and retained. The staff turnover of **Coastal Precast and Paving CC – Walvis Bay** should be considered, in order to determine how often new employees are added to the project, to ascertain how often refresher training courses should be provided. At the very least refresher training courses should be offered at least once every six months to ensure that all new employees understand the importance of protecting the environment and how pivotal compliance with this Environmental Management Plan is.

At minimum, the environmental awareness training should consist of the following:

- The explanation of the importance of adherence to the Environmental Management Plan,
- The discussion of the potential environmental effects that may arise as a result of the existing quarrying operations,
- The benefits of improved personal performance,
- The roles and responsibilities of each and every employee,
- The explanation and procedures associated with the implementation of the mitigation measures, to be carried out, whilst performing the various operational activities, associated with the **Coastal Precast and Paving CC – Walvis Bay** quarry activities,
- Ensuring that there is a certain degree of understanding of the specifications contained in the Environmental Management Plan, amongst all employees, and
- The illustration of the management structure, setting out which individuals are responsible for specific matters, pertaining to the Environmental Management Plan.

6. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

The following table forms the core of this updated EMPr for the current operational phase of the existing mining and quarrying site of **Coastal Precast and Paving CC – Walvis Bay**. This table should be used as a checklist on site. The aim of this EMPr is to derive measures that should be implemented during the current operational phase.

The purpose of the EMPr is to provide solutions to problems before they occur. If adhered to, this EMPr should limit corrective measures required during the current operational phase of the existing mining and quarrying site.

Activity	Impacts	Phase	Nature	Potential Impact before Mitigation	Mitigating Measures	Further Mitigation Measures Required	Potential Impact after Mitigation
Movement of small and heavy vehicles.	• Fugitive Dust emissions.	▪ Operational	Negative	**Low**	• Regular cleaning of the paved areas especially after east winds. • Wetting of ground with water to minimize dust emission.	• Tarring or paving of the maintenance road is another avenue that may be explored in the future.	**Low**
	• Creation of tracks.	▪ Operational	Negative	**Low**	• Proponent should stay on existing track. • If new tracks are needed this should be done in consultation with the competent authority.	• Rehabilitation of area should be done to the satisfaction of M.E.F.T. where new tracks have been made	**Low**
	• Spillage of petroleum products and other hazardous substances.	▪ Operational	Negative	**High**	• Petroleum product containers should be spill proof and safe and suitable for storage and conveyance. • Spill-kits should always be kept at the quarry. • The use of electrical power to replace costly diesel-powered generators is encouraged. • Proper MSDS sheets should be kept of all products to be used.	• Should a spillage occur, the contaminated soil should be collected and disposed of at a suitable hazardous waste disposal site in Walvis Bay. • Rehabilitation of the affected area should follow.	**Medium**
Excavation, earth works, blasting, crushing, stockpiling.	• Visual.	▪ Operational	Negative	**High**	• The listed activities form an integral part of quarrying activities. A mine plan should be kept to prevent haphazard excavations and trenching. • Mining activities should be limited to the boundaries of the allocated area.	• Rehabilitation should be done on a continuous basis. • Clearly marked access routes ensure mining activities do not conflict with the movement of the public.	**Medium**
	• Noise.	▪ Operational	Negative	**High**	• Noise levels should be kept to below 85 dB(A) where practical and reasonable to do so, as per Labour Act. • The use of ear protective gear should be enforced.	• None required.	**Medium**
Production of solid waste.	• Littering and pollution of surrounding environment.	▪ Operational	Negative	**Low**	• Promotion of solid waste reduction, reuse and recycling. • Transport waste in bulk to an approved waste facility on regular basis. • Waste should be enclosed during transportation to prevent windblown litter.	• Provision of solid bins with lids to prevent litter from escaping into the environment.	**Low**
Production of domestic sewage and effluent.	• Pollution and contamination surrounding so and underlying aquifer.	▪ Operational	Negative	**Low**	• Septic French drain toilets are part of the existing infrastructure. • The toilet system should be emptied regularly lo avoid overflowing as well as attracting pests.	• If effluent comes into contact with the soil, rehabilitation should be done immediately to the satisfaction of M.E.F.T.	**Low**
Recruitment of Labour force.	• Provision of income to workers.	▪ Operational	**Positive**	**Low**	• CPP employs about 130 employees actively contributing to the economy. • The provision of employment to Namibian Walvis Bay citizens should be priority.	• None required.	**Low**

Activity	Impacts	Phase	Nature	Potential Impact before Mitigation	Mitigating Measures	Further Mitigation Measures Required	Potential Impact after Mitigation
Potential Influx of employment seekers.	• Increased demand for accommodation / housing. • Increase in price for goods, service and accommodation / housing. • Increased demand for healthcare. • Potential increase in squatter camp and crime. • Increase in spread of diseases (HIV, TB) etc.	▪ Operational	Negative	**Medium**	• The Proponent should ensure employees are provided with sufficient resources to minimize additional impacts on the local community. • Create awareness among employees. • Increased security services.	• Establishment of a well-equipped medical Centre. • Ensure local people are given priority when positions become available.	**Medium**
Overall, Health and Safety Plan	• Jeopardizing the health and safety of employees and third parties. • Promoting the health and safety of all employees. • Minimization of injuries to employees.	▪ Operational	Positive	**Medium**	• First aid training to be provided to all staff members in collaboration with induction training, repeated periodically on the same basis as the environmental awareness training. • The development and adoption of an injury on duty procedure.	• None required.	**Medium**

Activity	Impacts	Phase	Nature	Potential Impact before Mitigation	Mitigating Measures	Further Mitigation Measures Required	Potential Impact after Mitigation
Effective and efficient implementation of the Environmental Management Plan.	• Lack of environmental awareness training. • Increased risks to employees and the surrounding environment.	▪ Operational	Negative	**Medium**	• Ensure that all new employees on site are provided with environmental awareness training and understand the vital importance of the Environmental Management Plan and the implementation thereof. • Ensure that refresher training courses are provided to all employees, at least every six months. • Appoint an Environmental Control Officer to oversee and monitor the implementation of the Environmental Management Plan.	• Discuss compliance with the Environmental Management Plan at management meetings. • Ensure that the potential and possible environmental impacts identified herein, are continuously and consistently monitored.	**Low**
Noise and Dust pollution.	• The generation of dust and high noise levels, arising from the quarrying activities might have an adverse effect on the surrounding environment, Interested and Affected Parties and third parties. • There is also a possibility that the dust generation and the high noise levels generated by the equipment on site, may have negative health and safety impacts on the staff working on site.	▪ Operational	Negative	**Medium**	• Dust and noise pollution should be kept as at low a level as possible and should be reduced as far as reasonably and practically possible. • How can dust levels be reduced? • Employees working on site, which may be exposed to high concentrations of fugitive dust, should be issued with Personal Protective Equipment. • All employees should be provided with auditory protective gear, to minimize the effects of the high noise levels at the site.	• The dust and noise levels should be monitored and surveyed on a regular basis, to ascertain whether further mitigation measures are required.	**Low**

7. SUMMARY AND CONCLUSIONS

This document highlights the potential impacts for the existing CCP Operational activities. It can be concluded that if the necessary mitigation measures are implemented and maintained the potential impacts associated with exciting CCP Operational activities can be minimized.

The Environmental Inspections and surveillance surveys are indicative of implementation of the necessary mitigation measures.

Short comings and additional mitigation measures are also reflected in these reports.

The site is still classified and used for mining/quarry and the area, continue to be not regarded as a sensitive biodiversity area.

The general area within the Dorob and Namib-Naukluft National Parks are well protected, including the Walvis Bay municipal lands.

There are negative impacts associated with the day-to-day operations of CCP, as defined in Section 5 of this report and these aspects and impacts will stay part of CCP's operations, but can be limited with continuous improvements, maintenance and good environmental practices enforced by the owners of CCP to limit these negative impacts on the biodiversity of the surrounding environment.

The mine/quarry is significant for the local economy and boosts the towns of Walvis Bay, and Swakopmund, as well as the local communities. It also creates employment opportunities. Secondary business opportunities have been established as a result of this operation.

It is also imperative that CCP ensures the mitigation measures are incorporated and adhered to. It is therefore recommended that these mitigation measures form part of a legal agreement between the relevant parties.

8. ADDENDUMS

ADDENDUM A: ENVIRONMENTAL INCIDENT LOG

Date	Incident	Comments (Include any possible explanations for current condition and possible responsible parties. Include photographs, records etc. if available)	Mitigation Measure (Give details and attach documentation as far as possible)	ECO Signature

ADDENDUM B: COMPLAINTS RECORD SHEET

RECORD OF COMPLAINTS	PAGE OF	DATE: / /
Complainant:		
Capacity of complainant:		
Complaint recorded by:		
Complaint:		
Corrective measure:		
ECO: Date:		
Notes by ECO:		

ATTACHMENTS: CERTIFICATES

REPUBLIC OF NAMIBIA

MINISTRY OF LABOUR, INDUSTRIAL RELATIONS AND EMPLOYMENT CREATION

Tel: +264 61 206 6111
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Enquiries: ~~Mr. DM Shinime~~ Email: ~~david.shinime~~@mol.gov.na
Our Ref: ~~01/24~~ Your Ref: ~~24/05~~

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Khomasdal
WINDHOEK, Namibia

Certificate of Registration as an Approved Inspection Authority

In terms of Regulation 18 of the Regulations relating to Health and Safety of Employees at work made under

Schedule ***1(2) of the Labour Act, 2007(Act 11of 2007)***

Authorization Number: ***A.I.A. 24/05***

This is to certify that: ***National Environmental Health Consultants CC***
P.O. Box 8416
Swakopmund

Has been approved as an Inspection Authority

Approved competencies	**Name of the only person who is deemed competent to render the approved services**
Occupational Hygiene, Noise, Dust, Illumination, Temperature, Stress, Ventilation, Ergonomics, Lead, Asbestos, Radiation, Vibration and Biological Monitoring. Implementation, Training ISO 9001, 14001, and 45000, OSHE Training and Audiometric Testing.	Johan Cornelissen (ID No: 6504085019086) Rion Cornelissen (ID No: 96030101177)

From: ***16 January 2024 – 16 January 2025***

Chief Inspector:

Mr. J. Shihepo

MINISTRY OF LABOUR, INDUSTRIAL RELATIONS AND EMPLOYMENT CREATION
OCCUPATIONAL HEALTH & SAFETY
Chief Inspector
2024 -01- 16
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REPUBLIC OF NAMIBIA

All official correspondence must be addressed to the Permanent Secretary

SAIOH

The Southern African Institute for Occupational Hygiene

This is to certify that

Johan Cornelissen J

ID Number: 6504085019086

Has satisfied the requirements of
the Constitution of the Institute
and on recommendation of the Professional Certification Committee
is registered as an

Occupational Hygienist (OH)

Member Number: 159

Valid until: 31 January 2025

Elsie Cornelia Peens

Chairperson: Professional Certification Committee

Member ID: 33914526

Certificate ID: 33914526-27714

Issued by the Southern African Institute for Occupational Hygiene

SAQA Professional Body ID: 844

IOHA Recognised Certification Scheme

IOHA

SAIOH

The Southern African Institute for Occupational Hygiene

This is to certify that

Rion Cornelissen

ID Number: 9603015178082

Has satisfied the requirements of
the Constitution of the Institute
and on recommendation of the Professional Certification Committee
is registered as an

Occupational Hygiene Technologist (OHT)

Member Number: 1926

Valid until: 31 January 2025

Elsie Cornelia Peens

Chairperson: Professional Certification Committee

Member ID: 64712911

Certificate ID: 64712911-27713

Issued by the Southern African Institute for Occupational Hygiene

SAQA Professional Body ID: 844

IOHA Recognised Certification Scheme

IOHA

SAIOH

The Southern African Institute for Occupational Hygiene

This is to certify that

Juan-Claude Pienaar

ID Number: 9503075273080

Has satisfied the requirements of
the Constitution of the Institute
and on recommendation of the Professionals Certification Committee
is registered as an

Occupational Hygiene Assistant (OHA)

Member Number: 2061

Valid until: 31 January 2025

Elsie Cornelia Peens
Chairperson: Professional Certification Committee

Member ID: 68837681
Certificate ID: 68837681-27712
Issued by the Southern African Institute for Occupational Hygiene
SAQA Professional Body ID: 844

IOHA Recognised Certification Scheme
IOHA