ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR ACTIVITIES ASSOCIATED WITH RIGHT-PATH INVESTMENT'S WASTE CAR BATTERY RECYCLING FACTORY, LOCATED WITHIN THE INDUSTRIAL AREA OF OKAHANDJA TOWN, OTJOZONDJUPA REGION, NAMIBIA.

MARCH 2020

Prepared for:

Right-Path Investments (Pty) Ltd

P.O Box 2118

Windhoek

Prepared by:

I.N.K Enviro Consultants cc

P.O Box 31908

Windhoek

immanuelkatali@gmail.com

EXPERTISE AND DECLARATION OF INDEPENDENCE

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Right-Path Investments (Pty) Ltd to undertake the environmental impact assessment process.

Immanuel N. Katali, the EIA Lead Practitioner holds a B.Arts (Honors) in Geography, Environmental Studies and Sociology and has over 5 years of experience in conducting EIAs in Namibia.

The consultant herewith declare that this report represents an independent, objective assessment of the environmental impacts and its mitigation measures associated with the activities and potential impacts of the waste car battery recycling factory.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS, ABBREVIATIONS AND UNITS

DEA	Department of Environmental Affairs
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
I.N.K	I.N.K Enviro Consultants cc
M^2	Meter Squares
MET	Ministry of Environment and Tourism

1 INTRODUCTION

1.1 Introduction to the Proposed Project

Right-Path Investment (Pty) Ltd (hereinafter referred to as Right-Path), intends on obtaining an Environmental Clearance Certificate (ECC) for their waste car battery recycling facility, located within the Okahandja industrial area, along the B2 road to Karibib (refer to Figure 1). The factory aims to burn recycled car batteries using foundry coke as a fuel for burning, to produce lead blocks which would be exported.

The factory, measuring approximately 720 m^2, was constructed in 2019, on an industrial designated land purchased from the Okahandja Municipality. However, there has not been any major activities in terms of operations apart from a 3-day equipment test run. It is thereafter, Right-path was informed that an ECC should have been obtained prior to the commencement of the construction and operation activities. The operations at the factory have then ceased and came to a complete standstill until an EIA process is initiated, all potential social and environmental impacts are identified and mitigated, and all relevant certification and permittance are obtained. Therefore, this EMP is only focused on the operation activities of the project.

Prior to commencement of the operation activities, an Environmental Clearance Certificate (ECC) is required on the basis of an approved Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP). It is with this background that, I.N.K Enviro Consultants cc (I.N.K) an independent firm of consultants, was appointed to compile an EMP for this project.

1.2 Details of the persons who compiled this EMP

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Right-Path Investments (Pty) Ltd to the EMP.

Immanuel N. Katali, the EIA project manager and lead practitioner holds a B.Arts (Honours) Degree in Geography, Environmental Studies and Sociology and has over five years of relevant experience in conducting/managing EIAs, compiling EMPs and Socio-Economic Studies. Immanuel is certified as an environmental practitioner under the Environmental Assessment Professionals Association of Namibia (EAPAN).

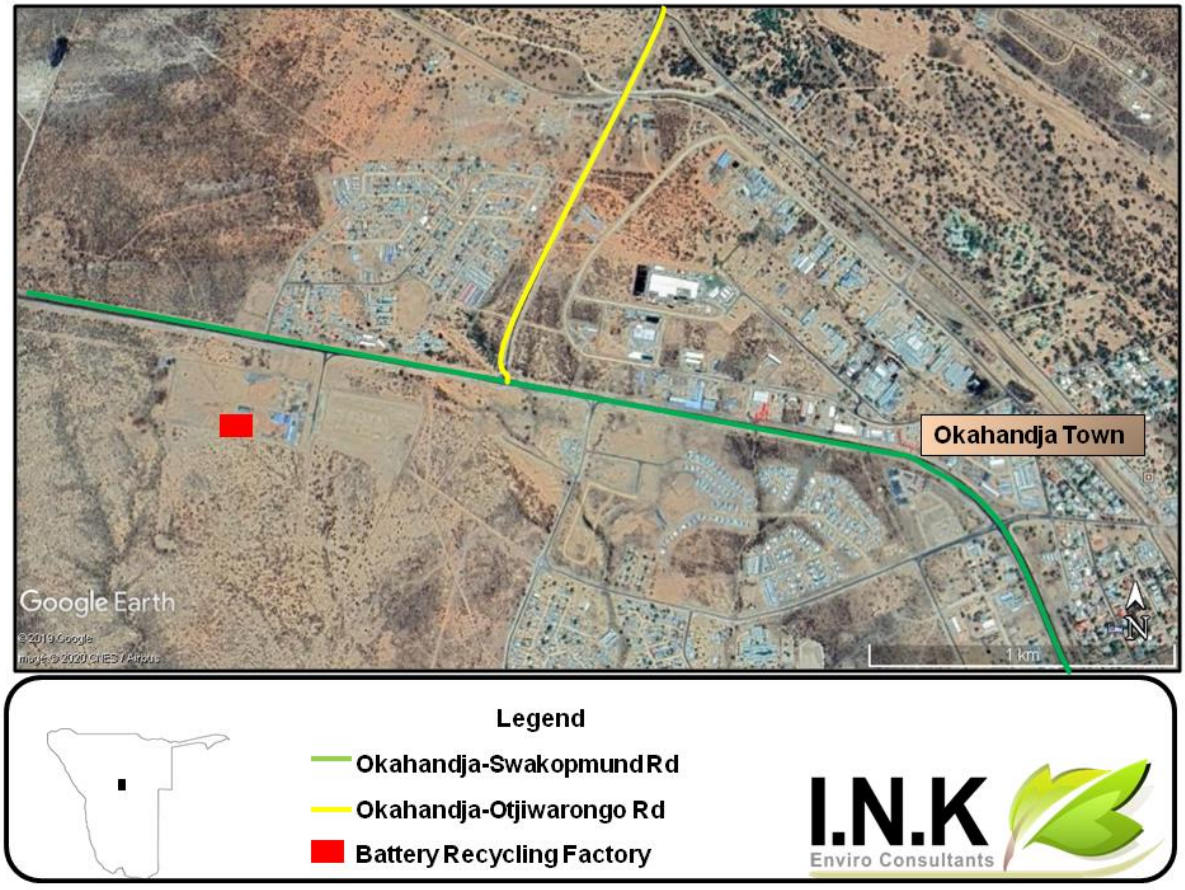

Figure 1: Location of the Waste Car Battery Recycling Factory

2 LEGAL FRAMEWORK

The Republic of Namibia has five tiers of law and several policies relevant to environmental assessment and protection, which includes:

- The Constitution
- Statutory law
- Common law
- Customary law
- International law

Key policies currently in force include:

- The EIA Policy (1995).
- Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1994).

As the main source of legislation, the Constitution of the Republic of Namibia (1990) makes provision for the creation and enforcement of applicable legislation. In this context and in accordance with its constitution, Namibia has passed numerous laws intended to protect the natural environment and mitigate against adverse environmental impacts.

2.1 Applicable Laws and Policies

In the context of the proposed irrigation project, there are several laws and policies currently applicable. They are reflected in Table 1 below.

Table 1: Relevant Legislation and Policies

YEAR	NAME	Natural Resource Use (energy & water)	Emissions to air (fumes, dust & odours)	Emissions to land (non-hazardous & hazardous	Emissions to water (industrial & domestic)	Noise	Visual	Impact on Land use	Impact on biodiversity	Impact on Archaeology	Socio-economic	Safety & Health
1990	The Constitution of the Republic of Namibia of 1990	X	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
2007	Environmental Management, Act 7 of 2007	X	X	X	X	X	X	X	X	X	X	X
2012	Regulations promulgated in terms of the Environmental Management, Act 7 of 2007	X	X	X	X	X	X	X	X	X	X	X
1976	Atmospheric Pollution Prevention		X	X					X		X	X

	Ordinance 11 of 1976											
1995	Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation	X	X	X	X	X	X	X	X	X		X
2003	Agricultural (Commercial) Land Reform Amendment Act										X	

3 ENVIRONMENTAL ACTION PLANS

The management measures proposed to mitigate the potential impacts relating to the operation phase are detailed in the action plans below.

3.1 Action plans to achieve objectives and goals

Action plans to achieve relevant objectives/goals are listed in tabular format together with timeframes for each action. The action plans include the timeframes and frequency for implementing the mitigation measures as well as identifying the responsible party.

Table 2: Action Plan – Hydrocarbon and Associated Spills Management

Objective:

The objective of the mitigation measures is to handle and store hydrocarbons in such a way as to prevent spills. Where spills do occur, to ensure the spill is contained and the contamination cleaned-up and contaminated material disposed of responsibly.

Activities / facilities	Management and mitigation measures	Action plan	
		Frequency / target date	Responsible parties
Machinery, generators and equipment	• Establish and maintain impermeable bunded / drip trays around machinery, generators and equipment. • Machinery and equipment shall be kept in good working condition to ensure they do not leak oil/diesel. • In the event where machinery needs to be repaired/serviced on site, all care shall be taken to prevent spillage of oil/diesel by performing the work on impermeable surfaces or proper placement of drip trays. • All used parts machinery (which may include, but not limited to, oil filter, pipes, rags, cans) will be collected and removed from site and disposed of in an appropriate manner. • Regular inspection of hazardous storage tanks for leakages and wear is required.	Throughout the operations	Supervisor

	• Regular environmental awareness should include potential risks associated with hydrocarbons.		
Storage of the Lead-Acid	• The reagents and chemicals shall only be stored in original containers being undamaged and sealed. • Damaged containers, bags, etc. of the Lead-Acid shall be sealed/repaired immediately with appropriate material. • Broken/damaged bags must be correctly handled & repaired to avoid contamination of the road and other third parties' facilities when transported to the Kupferberg Waste site. • After loading of lead-acid bags in trucks, bags must be inspected to ensure they are not damaged in transit to the disposal site and no reagents/chemicals have or will be released.	Throughout the operations	Supervisor
General (spills)	• Any spills will be contained and cleaned up immediately. • Spill kits will be readily available on site. Employees and/or contractors will be shown how to use the spill kits to enable containment and remediation of pollution incidents. • The contractor will establish environmental awareness to employees.	Throughout the operations	Supervisor

Table 3: Action Plan – Waste management

Objective:

The objective of the management measures is to ensure proper storage, removal, transportation and disposal/recycling of hazardous and non-hazardous (i.e. domestic) waste.

Activities / facilities	Technical and management options	Action plan	

		Frequency / target date	Responsible parties
General	• Waste shall be separated and recycled / re-used where possible.	Throughout the operations	Supervisor
	• No burning of waste material will be allowed on in the factory.	Throughout the operations	Supervisor
	• Contractors will be shown the importance of correct waste disposal as well as waste minimisation and recycling.	Throughout the operations	Supervisor
Collection and storage of waste	• Suitable receptacles with lids for waste disposal will be required at the factory. • Ensure animals do not have access to waste bins. All food scraps need to be removed from the factory on a daily basis. • If rubbish containers are used, ensure these can be sealed from strong wind and sealed during transport.	Throughout the operations	Supervisor
Disposal of non-hazardous (domestic) waste	• Waste shall be transported to the Okahandja Landfill site on a weekly basis.No disposal of waste in the factory and no burning of waste.	Throughout the operations	Supervisor
Disposal Hazardous Waste	• Hazardous Waste (including lead-acid and hydrocarbon contaminated material/soil) will be disposed off at the Kupferberg Hazardous Waste Disposal Facility.	Throughout the operations	Supervisor
Medical waste from First Aid Kit	• Medical waste where appropriate shall be disposed of at the medical waste facility.	Throughout the operations	Supervisor
Disposal records (domestic and industrial)	• Written evidence of safe disposal of waste will be kept.	Throughout the operations	Supervisor

Table 4: Action Plan - Visual Impacts

Objective:

The objective of the mitigation measures is to avoid (as far as possible) visual impacts to travellers and nearby communities.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Waste Car Battery Recycling Factory	Ensure that the operations and facilities are well maintained and kept in good order.	Throughout the operations	Supervisor

Table 5: **Action Plan – Air & Noise Pollution**

Objective:

The objective of the mitigation measures is to prevent negative air pollution impacts emitted from the factory.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Emission of Hazardous Acid Smoke	• Ensure the water tank method for clean and eco-friendly smoke is implemented. • Regular monitoring of the water in the water tank. • Replace the water in the water tank regularly. • Increase the height of the stack to appropriate levels and monitoring of smoke and acid smell on the ground level.	• Prior to operation activities • Throughout the operations	Supervisor

Noise Generated	• The operations are limited to day-time only and no operations should be allowed during the night.	• Throughout the operations	Supervisor

Table 6: **Action Plan – Social Issues & Training**

Objective:

The objective of the mitigation measures is to prevent negative social impacts associated with the workforce.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Employees - social issues	• Have zero tolerance to alcohol in the workplace. • A First Aid Kit should be available at all times.	• Prior to operation activities • Throughout the operations	Supervisor
Training & Awareness	All individuals who work at the factory are aware of the contents of the EMP.	• Prior to operation activities • Throughout the operations	Supervisor
Socio-Economic	Emissions from the operations could result in the contamination of the neighboring sites and their products, thereby impacting them economically. The management and mitigation measures in the preceding sections of this report will be implemented in order to manage this risk.	• Throughout the operations	Supervisor

Table 7: **Action Plan – Economic, Job Creation and Skills Development**

Objective:

The objective of the mitigation measures is to enhance positive economic impacts.

Activities / facilities	Technical and management options	Action plan	
		Frequency / target date	Responsible parties
Recruitment	• Have approachable person as she/he will be a key link between the community in the area and the factory. • Demonstrate its efforts to recruit employees from Okahandja and Otjozondjupa Region. • Be gender sensitive and select women for interview, training and recruitment.	• Prior to operation activities • Throughout the operations	Supervisor

4 PARTIES RESPONSIBLE FOR THE IMPLEMENTATION OF THE EMP

This section describes the roles and responsibilities for implementing the different parts of the environmental management plan (EMP).

4.1 Supervisor

The Supervisor has overall responsibility for environmental management and safety during the operation process of the waste car battery recycling facility and shall oversee the implementation of the EMP.

The Supervisor's responsibilities relating to compliance with this EMP:

- Regular inspections of compliance to this EMP and any other relevant legal requirements.
- Regular correspondence with the DEA on environmental issues and incidents.
- Conduct environmental awareness training during induction training and on an ad hoc basis thereafter to all workers.
- Ensure compliance to all factory rules
- Ensure that staff is controlled through the implementation of appropriate security measures.
- Carefully manage the handling of hydrocarbons and other hazardous materials.
- Monitor for excessive dust and noise levels and implement control measures if necessary.
- Report incidences to the DEA.
- Implement a waste management strategy.
- Monitoring and maintenance of equipment and machinery.
- Implement an environmental awareness plan.
- Implementation of first-aid procedures.

5 TRAINING AND AWARENESS

The purpose of the job specific environmental awareness training is to ensure that employees/all staff are equipped to implement the actions committed to in the EMP. The staff involved in operations will receive training regarding the requirements of this EMP.

Four main forms of training will be provided on the premises:

- Factory induction
- Environmental management training – general and targeted

The training will generally be prepared by the Supervisor (or the Environmental Representative).

The following will be done to ensure all employees, contractors, suppliers and visitors receive the appropriate training/awareness:

5.1 Environmental Factory Induction

All new members of staff receive a corporate Environmental Induction along with the obligatory Health & Safety induction. The induction gives a general overview of the environmental challenges faced by the project, how we are managing them, and general tips for reducing our impact in the workplace.

The main reason for environmental induction is to encourage new staff to be environmentally aware right from the beginning of their employment. This will ensure that environmental initiatives are successful by eliminating bad habits from the start.

Before working at the factory, all personnel and sub-contractors will undertake a factory induction incorporating environmental requirements. The induction will address a range of environmental awareness issues specific to the construction process of the project.

As a minimum, training shall include:

- Explanation on the importance of complying with the EMP and environmental implications should the EMP not be effectively implemented.
- Explanation of the factory rules.
- Discussion of the potential environmental impacts of activities, recognition of environmental risks and how to control these risks.
- The benefits of improved personal performance, understanding of what to do in case of an environmental event or exposure.
- Employees' roles and responsibilities, including emergency preparedness.
- Explanation of the mitigation measures that must be implemented when carrying out operational activities.
- Explanation of the requirements of the EMP and its specification.
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.

5.2 Environmental Awareness training

Targeted environmental management training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. This environmental training will aim to achieve a level of awareness

and competence appropriate to their assigned activities. This training will take place at the beginning of operations.