Updated Environmental Management Plan for Transportation of Tantalite Ore from Namibia Tantalite Mine to the Port of Walvis Bay, Port of Luderitz, Ariamsvlei Border Post and to Hosea Kutako International Airport

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Document Status

Proponent	African Tantalium (Pty) Ltd
Title of the proposed Activity	Updated Environmental Management Plan for Transportation of Tantalite Ore from Namibia Tantalite Mine to the Port of Walvis Bay, Port of Luderitz, Ariamsvlei Border Post and to Hosea Kutako International Airport
Activity Type	Updated Environmental Management Plan
Location of the Activity	Warmbad area, B2, B3, B4, B6, C13 national road, Hosea Kutako International Airport, Port of Walvis Bay, Port of Luderitz and Ariamsvlei Border Post GPS Coordinates at the Mine: 28°43'14.90" S 18°45'10.59" E
Competent Authority	Environmental Commission (Ministry of Environment and Tourism)
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Abbreviations

Abbreviations	Meaning
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ER	Employee Representative
I&AP	Interested and Affected Parties
MET	Ministry of Environment and Tourism

1. INTRODUCTION

The Namibia Tantalite Investments (Pty) Ltd mines Tantalite Ore at 110 Umeis Farm in Warmbad currently depends on boreholes for supply of water for mining purpose and for human consumption.

The Environmental Management Programme (EMP) is a set of feasible and cost-effective mitigation, monitoring and institutional measures to avoid adverse environmental and social impacts, reduce them to acceptable levels or to compensate for them. This EMP covers all adverse environmental impacts, including any that may result from disturbance of farming activities. The EMP provides the technical details for each mitigation, monitoring and institutional measure, including the impact(s) to which it relates and the conditions when it is required, together with designs, equipment descriptions and operating procedures. Where necessary, the EMP specifies for each mitigation measure timing, cost, locations, and institution responsible.

The EMP specifies the monitoring objectives and the types of monitoring needed to ensure that the mitigation measures have been put in place and are working as intended, plus any other monitoring of the environmental and social aspects that is considered appropriate to ensure that unanticipated impacts do not occur. The EMP also specifies the monitoring and reporting procedures to ensure early detection of issues and provide information on progress and results of mitigation. This plan will also help the developer map out progress toward achieving continual improvements.

The development an Environmental Management Plan is a requirement for any EIA project as per Namibia's Environmental Management Act No.7 of 2007. Therefore, this EMP is a legal document that must accompany the EIA Report before an Environmental Clearance is issued.

The purpose of this EMP is to ensure that the environmental impacts of the activities associated with laying of pipes from the river to the mine are managed, mitigated and kept minimum during the lifespan of the transportation process. This document is

binding on the Project Proponent, all contractors and sub-contractors and visitors to the site. It must be included as part of any tender documents as well as contractual documents between the Project Proponent and any contractors.

This EMP:

• identifies project activities that could cause environmental damage (risks) and provides a summary of actions required;

• identifies institutions responsible for ensuring compliance with the EMP and provides their contact information;

• provides standard procedures to avoid, minimise and mitigate the identified negative environmental impacts and to enhance the positive impact of the project on the environment;

• provides for site and project specific rules and actions required;

• forms a written record of procedures, responsibilities, requirements and rules for contractor/s, their staff and any other person who must comply with the EMP;

• provides a monitoring and auditing programme to track and record compliance and identify and respond to any potential or actual negative environmental impacts; and

• provides a monitoring programme to record any mitigation measures that are implemented;

1.1 EMP Administration

For the general provisions of this EMP to be fully implemented there is a strong need to clearly outline the roles and responsibilities of all stakeholders. There is also a need for NTI and its project managers/contractors to appoint an overall responsible person to ensure the successful implementation of the EMP. The responsible person needs to be someone who has a basic understanding of EMP administration. Under the management actions, each action is allocated to a responsible entity to ensure that the specific action is managed and documented properly.

Furthermore, all key role players such as contractors who will be involved during the installation of equipment at the project sites must be informed about the contents of this EMP and activities to be undertaken to mitigate the potential impacts identified.

Any new developments that will occur during the implementation of this project that might have potential impacts on the environment should trigger further adjustments and revision of this EMP to ensure that all potential threats to the environment are addressed on an ongoing basis.

1.2 Management Actions

1.2.1 Generic Management Action

In many instances, maintenance work undertaken at places such as water supply pipelines does not require an Environmental Impact Assessment and hence is not generally guided by an EMP. However, in order to ensure that such water supply pipelines are effectively maintained and that maintenance works are carried out in a responsible fashion and that they do not pose any risks to the environment or human health and wellbeing, it is recommended that the following general management actions be included in this EMP.

1.2.2 Record Keeping

Record keeping is an essential part of effective infrastructure management. NTI should establish an effective monitoring and record keeping system for the duration of the operational phase of its water supply pipelines. The purpose of this is to ensure the effective management and maintenance of all structures and infrastructure, and to ensure the effective implementation of these general operational measures as required by the law in order to ensure the on-going sustainability of operations. The following is a brief guide to the type of records that should be kept.

• **Manufacturer's operational and maintenance guidelines on pumps:** The manufacturer's guidelines need to be thoroughly read, understood and implemented. They should also be kept on file for on-going reference. Where specialists are required

to fulfil certain functions, they should be identified up front and suitably contracted to perform the required functions in accordance with the manufacturer's specifications.

• **Plans:** There should be a complete record of drawings and plans of the water supply pipeline showing the layout, size, shape, and details of all components of the pipeline, particularly for buried items such as pipelines. When problems occur or modifications are planned, the drawings will be a most valuable source of information. They should be kept up to date by marking up all changes, i.e. omissions and additions to the pipeline.

• **Maintenance:** Maintenance records are of vital importance. Details of any maintenance carried out in any component of the pump station should be entered in the maintenance log sheets designed for the purpose.

• **Daily log:** A large, page-a-day diary will serve for this purpose and any information which does not logically fit in some other record must be entered in the diary. Typical examples are weather conditions, temperature, peculiar circumstances and problems encountered.

• **Performance Records:** Testing is necessary to ensure that pump station and pipelines are operating effectively and to this end pipes need to be regularly monitored to ensure that there is no leakage etc.

• **Environmental, public health and safety education:** Set up an Educational

Programme that is led by an Environmental Educator for NTI staff and community members living in proximity to the pump station to promote wise environmental management and ensuring public health and safety. The programme should discuss with staff, community members and local leadership structures the role that they can and need to play with maintaining and securing the pump stations e.g. reporting vandalisms, non-functioning safety lights or other faulty equipment, etc. It needs to be clear who they should report what to and what everyone's responsibility is in this regard. The programme should seek to empower people and build pride amongst staff community members and local leadership structures.

Monitoring and Evaluation

This section of the EMP is aimed at providing the monitoring and reporting procedures to ensure early detection of issues and provide information on progress and results of mitigation.

The main objective of this EMP's monitoring program is to ensure that the mitigation measures that have been put in place are working as intended to ensure that unanticipated environmental impacts do not occur. The effectiveness of the mitigation measures should also be evaluated to and adjusted accordingly.

The person to be appointed by NTI to take the overall responsibly of ensuring that the EMP is fully implemented must also monitor the implementation of the EMP and keep records on a throughout the duration of the project. Monthly monitoring report on the implementation of the EMP must be compiled and filed using the pro-forma provided below:

The development of EMP is a requirement for any EIA project as per Namibia's Environmental Management Act (7 of 2007). Therefore, this EMP is a legal document that must accompany the EIA Report before an Environmental Clearance is issued. The EIA process comprised a full Scoping process that included an assessment of all potential environmental impacts as identified through the process. Section 8 (j) of the EIA Regulations require that an EMP is submitted as part of the Scoping Report so that these documents can be considered simultaneously. The EMP has been included in the Scoping Report to provide a link between the impacts identified in the EIA Process and the required environmental management on the ground during project implementation and operation. The main purpose of this EMP is to guide environmental management throughout the life-cycle stages of the construction of fuel storage Facility and to:

- Minimize adverse impacts on the environment;
- Protect the environmental quality of the site;
- Meet the requirements of all national and local legislations;

- Outline guidelines for construction of services and operational phase of the project.
- Provide detailed specifications (table 2) for the management and mitigation of activities that have the potential to impact negatively on the environment.

This EMP describes the mitigation and monitoring measures to be implemented during the following phases of these developments:

- **Construction Tender Preparation** – the period during which the proponent, having secured the necessary legislative and administrative arrangements, prepare construction tender documents for the development of services infrastructure to service the various erven as well as any other construction process(s) within the development areas;
- **Construction** – the period during which the laying of pipes from the river to the mine and construction of the solar pump.

2. RESPONSIBILITIES

The responsibility for the implementation of the EMP ultimately lies with the proponent (African Tantalum (Pty) Ltd), who are also responsible for the eventual operation of the Mine. The implementation of this EMP requires the involvement of several key individuals, each fulfilling a different but vital role to ensure sound environmental management during each phase of these developments.

The Developer (African Tantalum (Pty) Ltd) should appoint an Employer's Representative (ER) to oversee all aspects of these developments for all development phases (including all contracts for work outsourced). The Developer may decide to assign this role to one person for the full duration of these developments, or may assign an ER to each of the development phases – i.e. one for the Planning and Design Phase, one for the Construction Phase and one for the Operational and Maintenance Phase. The ER will in turn appoint an Environmental Control Officer (ECO) to oversee the implementation of the whole EMP during the Construction and Operation and Maintenance Phases. Again, the ER (and/or the Developer) may decide to assign this role to one person for both phases, or may assign a different ECO for each phase –

i.e. one for the Construction Phase and another for the Operation and Maintenance Phase. The following positions and their respective responsibilities are outlined below:

- Employer's Representative;
- Environmental Control Officer; and
- Contractor (Construction and Operations and Maintenance).

2.1. Employer's Representative

The ER is appointed by the Developer to manage all contracts for work/services that are outsourced during all development phases. Any official communication regarding work agreements is delivered through this person. The ER should with the commencement of the project appoint a competent ECO who will represent the Developer on-site.

During the Planning and Design and Construction Tender Preparation Phase, the ER will have the following responsibilities regarding the implementation of this EMP:

- Ensuring that the necessary legal authorisations have been obtained (see Table 1);
- Developing, managing implementation of and maintaining all Development Guidelines;
- Ensure that the management requirements included in Table 2 inform the planning and design of the relevant infrastructure developments (i.e. that these requirements are considered during the Planning and Design Phase not as an afterthought); and
- Ensure that the management requirements included in Table 2 inform the preparation of tender documents for the construction of the relevant infrastructure developments.

During the Construction and Operation and Maintenance Phases the ER shall assist the ECO where necessary and will have the following responsibilities regarding the implementation of this EMP:

- Ensuring that the necessary legal authorizations and permits (see Table 1) have been obtained by the Contractor;
- Assisting the Contractor in finding environmentally responsible solutions to problems with input from the ECO where necessary;
- Ordering the removal of individuals and/or equipment not complying with the EMP;
- Issuing fines for transgression of site rules and penalties for contravention of the EMP; and
- Providing input into the ECO's ongoing internal review of the EMP. This review report should be submitted on a monthly basis to the Developer.

Theme	Legislation Instrument	Management Requirements
Archeology	National Heritage Act 27 of 2004	All protected heritage resources (e.g. human remains etc.) discovered, need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC before they may be relocated.
Environmental	Environmental Management Act (EMA) 7 of 2007 EIA Regulations (EIAR) (GN) No. 28/2007 (GG No. 4878)	The amendment, transfer or renewal of the Environmental Clearance Certificate (ECC) (EMA S39-42; EIAR S19 & 20). Amendments to this EMP will require an amendment of the ECC for these developments.
	"List of activities that may not be undertaken without ECC" GG No. 4878 GN No. 29	Any activities listed in this listing notice require an ECC and hence an Environmental Assessment.
Labour	Labour Act 11 of 2007 Health and Safety Regulations (HSR) GN 156/1997 (GG 1617).	Adhere to all applicable provisions of the Labour Act and the Health and Safety regulations.
Roads	Roads Ordinance 17	• Width of proclaimed roads and road reserve boundaries (S3.1) • Control of traffic on urban trunk and main roads (S27.1) • Rails, tracks, bridges, wires, cables, subways or culverts across or under proclaimed roads (S36.1) • Infringements and obstructions on and interference with proclaimed roads. (S37.1) • Distance from proclaimed roads at which fences are erected (S38)

Table 1: Relevant guidelines and legislated permit requirements

2.2. Environmental Control Officer (ECO)

The ECO should be a competent person appointed by the ER. The ECO is the Developer's on-site representative primarily responsible for the monitoring and review of on-site environmental management and implementation of the EMP by the Contractor. If no ECO is appointed, then the duties of the ECO shall fall upon the ER.

During the Construction Phase and Operation and Maintenance Phase the ECO's duties include the following:

- Assisting the ER in ensuring that the necessary legal authorisations have been obtained;
- Maintaining open and direct lines of communication between the ER, Developer, the Construction and/or Operations and Maintenance Contractor, and Interested and Affected Parties (I&APs) with regard to this EMP and matters incidental thereto;
- Monthly site inspection of all construction and/or infrastructure maintenance areas with regard to compliance with this EMP;
- Monitor and verify adherence to the EMP (audit the implementation of the EMP) and verify that environmental impacts are kept to a minimum;
- Taking appropriate action if the specifications of the EMP are not adhered to;
- Assisting the Contractor in finding environmentally responsible solutions to problems;
- Advising on the removal of person(s) and/or equipment not complying with the specifications of the EMP in consultation with the ER;
- Recommending the issuing of fines for transgressions of site rules and penalties for contraventions of the EMP; and
- Undertaking an annual review of the EMP.

2.3. Contractor (Construction and Operations and Maintenance)

The Contractor is responsible for the implementation of the EMP, on-site monitoring and evaluation of the EMP. It is envisaged that various contractors might be appointed at various periods for various tasks throughout the life cycle (construction through to decommissioning phase) of this project. These can be broadly grouped into Construction Contractors and Operations and Maintenance Contractors. In order to ensure sound environmental management, the relevant sections of this EMP should be included in all contracts of work outsourced thus legally binding all appointed contractors and sub-contractors. All contractors shall ensure that adequate environmental awareness training of senior site personnel takes place and that all construction workers and newcomers receive an induction presentation on the importance and implications of the EMP. The presentation shall be conducted, as far as is possible, in the employees' language of choice.

The Contractor should keep records of all environmental training sessions, including names, dates and the information presented.

ENVIRONMENTAL MANAGEMENT PLAN

1. Introduction to the EMP

The EMP is a set of feasible and cost-effective mitigation, monitoring and institutional measures to avoid adverse environmental and social impacts, reduce them to acceptable levels or to compensate for them. This EMP covers all adverse environmental impacts, including any that may result from loading, offloading, storage or transportation of Tantalite Ore. The EMP will provide the technical details for each mitigation, monitoring and institutional measure, including the impact(s) to which it

relates and the conditions when it is required, together with designs, equipment descriptions and operating procedures. Where necessary, the EMP will specify for each mitigation measure timing, cost, locations, and institution responsible.

The EMP will specify the monitoring objectives and the types of monitoring needed to ensure that the mitigation measures have been put in place and are working as intended for plus any other monitoring of the environmental and social aspects that is considered appropriate to measure the environmental impacts or to ensure that unanticipated environmental impacts do not occur. The EMP will also specify the monitoring and reporting procedures to ensure early detection of issues and provide information on progress and results of mitigation. This EMP describes the processes that Namibia Tantalite Mine and associates will follow to maximize compliance and minimize harm to the environment. This plan will also help the Mine map out progress toward achieving continual improvements. The EMP comprises of a list of actions needed to mitigate the potential negative environmental impacts identified in the EIA.

The development of an Environmental Management Plan is a requirement for any EIA project as per Namibia's Environmental Management Act No.7 of 2007. Therefore, this EMP is a legal document that must accompany the EIA Report before an Environmental Clearance is issued.

2. Objectives of the EMP

The main purpose of this EMP is to prevent avoidable damage and/or minimise or mitigate unavoidable environmental damage associated with Tantalite Ore.

The EMP forms part of the transportation, loading, offloading and storage procedures that all contractors/ employees/ drivers of the Mine must be committed.

This EMP:

• identifies all transportation activities that could cause environmental damage (risks) and provides a summary of actions required;
• identifies institutions responsible for ensuring compliance with the EMP and provides their contact information;

• provides standard procedures to avoid, minimise and mitigate the identified negative environmental impacts and to enhance the positive impact of the proposed activities on the environment;
• provides for site and offloading and transportation rules and actions required;
• forms a written record of procedures, responsibilities, requirements and rules for contractor/s, their staff and any other person who must comply with the EMP;
• provides a monitoring and auditing programme to track and record compliance and identify and respond to any potential or actual negative environmental impacts, and
• provides a monitoring programme to record any mitigation measures that are implemented.

3. EMP Administration

For the general provisions of this EMP to be fully implemented there is a strong need to clearly outline the roles and responsibilities of all stakeholders. There is also a need for Namibia Tantalite Mine and its contractors to appoint an overall responsible person to ensure the successful implementation of the EMP. The responsible person needs to be someone who has a basic understanding of EMP administration. Under the management actions, each action is allocated to a responsible entity to ensure that the specific action is managed and documented properly.

Furthermore, all key role players such as contractors who will be involved during the offloading, storage and transportation of Tantalite Ore must be informed about the contents of this EMP and activities to be undertaken to mitigate the potential impacts identified.

Any new developments that will occur during the transportation of Tantalite Ore that might have potential impacts on the environment should trigger further adjustments and revision of this EMP to ensure that all potential threats to the environment are addressed on an ongoing basis.

4. Management Actions

4.1. Generic Management Action

In many instances, many offloading and transportation of any materials does not require an Environmental Impact Assessment and hence is not generally guided by an EMP. However, in order to ensure that such activities are effectively maintained and that offloading and transportation activities are done in a responsible fashion and that they do not pose any risks to the environment or human health and wellbeing, it is recommended that the following general management actions be included in this EMP.

4.2. Record Keeping

Record keeping is an essential part of effective management. Namibia Tantalite Mine should establish an effective monitoring and record keeping system for the duration of transportation of the Ore. The purpose of this is to ensure that effective management and control of all activities during transportation are carried out in a responsible manner as required by the law in order to ensure that no impacts are triggered as a result of the transportation activities.

The following is a brief guide to the type of records that should be kept.

• **Plans and Procedures:** There should be a complete record of steps and procedures clearly indicating what should be done, the responsible person and the activity that should be done as precautionary measure. Such plans should be kept up to date by marking up all changes, i.e. omissions and additions to the procedures.

• **Storage:** Records should be done on how many bags or consignment are stored at the warehouse and the conditions of the consignment whether bags are intact or whether they are leaking. If leakage is detected, measures should be taken to ensure that the situation is rectified.

• **Daily log:** A large, page-a-day diary will serve for this purpose and any information which does not logically fit in some other record must be entered in the diary. Typical examples are weather conditions, temperature, peculiar circumstances and problems encountered.

- **Environmental, public health and safety education:** Set up an Educational Programme that is led by an Environmental Educator for staff offloading the Ore and drivers who will be driving the trucks with the consignment. The programme should discuss with staff and drivers the role that they can and need to play regarding safe offloading and transportation of the Ore.

5. Specific Management Actions

The table below summarizes the mitigation measures to be undertaken to minimize the overall environmental impacts identifies for this activity.

Management and Mitigation Actions

No.	Impact	Recommended mitigation	Technical Information	Implementation Schedule	Costing in N$	Responsible Agent
Aquatic Environment						
Impacts during offloading of Zinc Oxide Ore						
1.	Tantalite Ore particles that spill into water during loading / offloading from the cargo into the warehouse may pose health hazard for fish and other marine resources.	- loading / offloading should be done in a way that does not pose any hazards to the marine resources. - Staff offloading the Ore should ensure that all bags are intact before offloading from the ship into the warehouse.	No technical information required.	Mitigation measures applicable during the offloading of bags.	No additional mitigation cost predicted.	Namibia Tantalite Mine / Contractor
2.	Tantalite Ore can cause minor irritation, tearing and mild temporary pain.	- Flush with warm running water for at least 15 minutes, including the eyelids to remove dust particle(s). If irritation persists seek medical attention.	If irritation persists seek medical attention.	Mitigation measures applicable during the offloading of bags especially when it is dusty.	No additional mitigation cost predicted.	Contractor

3.	Tantalite Ore may cause minor irritation or uncomfortable to the skin.	Remove contaminated clothing and wash affected area with soap and warm water. Seek medical attention if irritation develops or persists.	Seek medical attention if irritation develops or persists.	During loading / offloading of Tantalite Ore.	No additional mitigation cost predicted.	Contractor
4.	Tantalite Ore has very low solubility in water and generally has no direct bio-availability.	Waste Tantalite Ore should be handled and disposed of in a manner which complies with local, state/provincial and federal regulations. Tantalite Ore may cause adverse long-term effects in the aquatic environment. Keep out of sewers, ditches or drains. Ensure that no spillage during offloading from the ship to the warehouse.	Keep Ore out of sewers, ditches or drains.	During loading / offloading of the Ore.	No additional mitigation cost predicted.	Contractor
5.	Tantalite Ore fumes may be released in a fire.	Fire fighters must be fully trained and wear full protective clothing including an approved, self- contained breathing apparatus which supplies a positive air pressure within a full face piece mask.	Firefighting equipment should be handy staff handling Ore training on how to respond should fire incident occur	At the warehouse during loading / offloading and in trucks during transportation	No additional mitigation cost predicted.	Namibia Tantalite Mine / Contractor
6.	Tantalite Ore spillage on sea and on land may cause health hazards to living organisms.	Small Spill - sweep up material for disposal or recovery. Large spills - Shovel material into containers. Thoroughly sweep area of spill to clean up any residual material. In case of large spills, follow the facility emergency response procedures. Provisions should also be made to clean up any Tantalite Ore particles that may spill into water (spill into the sea should be avoided at all costs)	Tools and equipment should be handy to correct any spillage incident.	During offloading stage	No additional mitigation cost predicted.	Namibia Tantalite Mine /Contractor

Impacts during transportation of Zinc Oxide Ore						
7.	Containers / bags with leakages may cause contamination of natural environment (water bodies, land etc.)	In case of small spill - sweep up material for disposal or recovery. In case of large spills – shovel spills into container. Thoroughly sweep area of spill to clean up any residual material. In case of large spills, follow the facility emergency response procedures. Isolate the spill area to prevent people from entering it until the clean-up is complete.	All personnel handling or operating the transportation trucks should be trained on how to handle any leakages.	During offloading and transportation	No additional mitigation cost predicted	Contractor / Truck Operator
8.	In the event of spills truck operator may experience some eyes, skin or respiratory problems	Bus Operator should be provided with adequate personal protective equipment and in the event of spill or accident, Truck Operator should wear safety glasses or goggles, impervious gloves, boots and overalls to avoid skin contacts.	Truck Operator should be inducted on health and safety at least once a month	During the transportation period	No additional mitigation cost predicted	Contractor / Truck Operator
9.	Tantalite Ore particles may be blown away in case if bags are torn or container not properly sealed (dust spillages)	Ensure that all bags or containers are sealed properly before the driver take off.	Consignment should be inspected before departure	During the transportation period	No additional mitigation cost predicted	Contractors/ Truck Operator
10.	Open trucks can cause spillages on quay and neighboring operations	Measure should be taken to contain dust or spillage that may come from open trucks.	Consignment should be inspected before departure	During the transportation period	No additional mitigation cost predicted	Contractors/ Truck Operator
11.	Traffic congestions to and from the mine (in Karasburg, Warmbad,	Truck Operators and drivers should be inducted to take respect road signs and to observe road patrols or pedestrian crossing especially around schools.	Truck Operators and Drivers should be inducted on areas where they need to	During the transportation period	No additional mitigation cost predicted	Contractors/ Truck Operator

	Keetmanshoop and along the B1, B4 and C13 road)		give right of way to school children and pedestrian crossings.			
12.	Spillages caused by cargo trapped between trucks tires.	The facility should be maintained at all times.	No technical information required.	Mitigation measures applicable during the operational phase of the project.	No additional mitigation cost predicted.	Contractors.

6. Monitoring and Evaluation

6.1. Monitoring

This section of the EMP is aimed at providing the monitoring and reporting procedures to ensure early detection of issues and provide information on progress and results of mitigation.

The main objective of this EMP's monitoring program is to ensure that the mitigation measures that have been put in place are working as intended to ensure that unanticipated environmental impacts do not occur. The effectiveness of the mitigation measures should also be evaluated to and adjusted accordingly.

The person to be appointed by Namibia Tantalite Mine to take the overall responsibly of ensuring that the EMP is fully implemented must also monitor the implementation of the EMP and keep records on an throughout the duration of the activity.

Reporting procedures for conveying information from the monitoring activities must be developed by the Namibia Tantalite Mine Management in order to ensure that management is able to take rapid corrective action should certain thresholds be exceeded, this could be included as part of compliance management.

6.2. Performance Assessment of the EMP during Operational Phase

Performance Assessment (P.A) is a process to evaluate compliance with stipulated EMP requirements and to assess the achievement of defined objectives and targets. The timing of the P.A. should be conducted once every year by an independent environmental consultancy company.

A P.A. analyses the results obtained from monitoring, assesses whether objectives and targets have been met and whether there are variances from the stipulated EMP and legal requirements. In addition, the P.A. also assesses whether EMP implementation has been undertaken according to Programmed arrangements and that the EMP itself is being appropriately updated. The P.A. should confirm that the identified corrective action has been undertaken and then assess the effectiveness of that action.

REFERENCES

Aucamp, P. (ed.). 1998. *Biological diversity in Namibia: a country study.* Windhoek: Namibian National Biodiversity Task Force. 332 pp.

Barnard, P. (ed.). 1998. *Biological diversity in Namibia: a country study.* Windhoek: Namibian National Biodiversity Task Force. 332 pp.

Coats Palgrave, K. 1983. Trees of Southern Africa. Struik Publishers, Cape Town, RSA.

International Commission on Non-Ionizing Radiation Protection (1998).Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz). Health Phys. 74, 494-522.

Linda de Jager. 2014. Environmental assessment for Digital Terrestrial television Infrastructure rollout Project of Namibian broadcasting Corporation: A review of the possible health effects.

Mendelsohn, J., el Obeid, S., & Roberts, C. (2000). A Profile of North-Central Namibia . Windhoek: Gamsberg Macmillan.

Mendelsohn, J. Roberts, C. 1997. An Environmental Profile and Atlas of Caprivi. Pretoria: Art-2-Print.

Mendelsohn, J., Jarvis, A., Roberts, C. & Roberts, T. 2002.Atlas of Namibia. David Phillip Publishers, Kenilworth, Cape Town.

Stork, C. & Kanyangela, R.Digital TV Switch Over: Economic Impact Assessment. Commissioned by ICT Consultants (Pty) Ltd.