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Independent Environmental Compliance Audit

Eskom (SOC) Ltd

Independent Environmental Compliance Audit: Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province.

March 2021



Independent Environmental Compliance Audit: Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province.

March 2021



Submitted To

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Project No. **4503067597**

Contents

1. Authorisation	2
2. Limitations.....	3
3. Abbreviations	4
4. Audit Summary.....	4
5. Engagement Overview and Summary.....	5
5.1 Introduction	5
5.2 Auditor's Responsibility	5
5.3 Use of our Independent Environmental Compliance Audit Report.....	5
5.4 Inherent Limitations.....	5
6. Statement of the Audit Methodology and Processes.....	6
a. Basis for Conclusion	7
b. Findings	7
c. Recommendations	8
d. Format of Audit Report	9
7. Executive Summary.....	9
7.1 Audit Requirement.....	9
7.2 Background	10
7.3 Compliance Summary	11
8. Findings, Audit Evidence and Recommendations.....	14

Appendices

- Appendix 1 – Documents Reviewed
- Appendix 2 – Persons Interviewed
- Appendix 3 – Audit Photographs
- Appendix 4 – Supporting documentation
- Appendix 5 – Complaints Register
- Appendix 6 – Audit Recommendations and Response Table

1. Authorisation

This Report is authorised by:

Fox Civil & Environmental Engineers Pty Ltd



SIGNATURE

13 April 2021

2. Limitations

Independent Environmental Compliance Audit:

This is to certify:-

1. Fox Civil & Environmental Engineers Pty Ltd (the Auditor) has prepared the accompanying Independent Environmental Compliance Audit Report for Eskom (SOC) Ltd.
2. Under the terms of the Auditor's engagement the Auditor has conducted the audit in accordance with the Scope of Works contained in the Request for Proposal. The Auditor has relied on information provided by the Auditee. The Auditor expresses no opinion as to the accuracy, truth, sufficiency or legality of the information provided by the Client or the Auditee in respect of the Auditee's compliance with the conditions or other requirements set out in the conditions of the Environmental Management Plan.
3. This Report has been prepared in accordance with generally accepted practices (including the standards set out in *ISO 19011: 2011 Guidelines for auditing management systems*, using standards of care and diligence normally practiced by recognised consulting firms performing services of a similar nature.
4. The Auditor is not responsible for the accuracy of information provided by other individuals or entities which is used in this Report. This Report presents the Auditor's professional judgement based upon data and findings identified in this Report and interpretation of such data based upon the Auditor's experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.
5. This Report is issued with the understanding that it is the responsibility of the Client, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law.
6. Neither the Auditor nor any member associate or employee of the Auditor undertakes any responsibility for any injury, loss or damage claimed by Eskom arising out of a claim by any third party against the Client in connection with this Report.

3. Abbreviations

Abbreviation	Definition
EMPr	Environment Management Programme
TMP	Traffic Management Plan
WMP	Waste Management Plan
ERR	Environmental Recommendations Ranking
CEMS	Construction Environmental Method Statement

4. Audit Summary

Audit Title	Independent Environmental Compliance Audit: Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province.
Site:	Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province.
Client:	Eskom (SOC) Ltd
Client Address:	Corner of Watermeyer and Jellicoe Street, Witbank, 1034.
Client Telephone	+27 (0) 13 693 3860
Client Email	mathibAL@eskom.co.za
Lead Auditor:	Serina Pillay
Auditor's Telephone:	+27 (0) 784396501
Date of Site Visit	15 th March 2021
Audit Objective:	<p>Report on compliance by Eskom (SOC) Ltd with the Project Environmental Management Programme :</p> <ul style="list-style-type: none"> • Assess the environmental performance of the project and whether it is complying with the relevant requirements in the EMPr (including any assessment, plan or program required under the EMPr); • Review the adequacy of any approved strategies, plans or programs required under these approvals; and, if appropriate • Recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.
Time period audited:	March 2021
Date terms of engagement signed:	09 March 2021
Date Audit report signed (the Completion Date):	13 April 2021

5. Engagement Overview and Summary

5.1 Introduction

Fox Civil & Environmental Engineers Pty Ltd was engaged by Eskom (SOC) Ltd who is also referred to as 'the Proponent' in the Project, to undertake an Independent Environmental Compliance Audit on compliance relative to the conditions of the Environmental Management Programme. An Independent Auditor is appointed to comply with **Condition 4.3** of the EMPr and is required to form part of the project team and be involved in all aspects of project planning that can influence environmental conditions on the site. The Environmental Auditor should assess compliance with the EMPr on a monthly basis and be responsible for providing feedback on potential environmental problems associated with the development.

5.2 Auditor's Responsibility

Fox Civil & Environmental Engineers Pty Ltd responsibility is to conduct an Independent Environmental Compliance Audit in accordance with conditions of the EMPr, within the agreed scope, in all material respects. The procedures selected depend on our judgment, including an assessment of the risks of material non-compliance of the matter being audited.

We read other information provided by the client and considered whether it was consistent with the knowledge obtained through our procedures. We considered the implications for our report if we became aware of any apparent material inconsistencies with the matter being audited.

An Independent Environmental Compliance Audit involves performing procedures to obtain evidence about the matter being audited. The procedures selected depend on the audit team leader's judgement, including the assessment of material non-compliance of the matter being audited. In making those assessments, we considered internal controls relevant to Eskoms compliance with the EMPr in order to design assurance procedures that are appropriate in the circumstances, including for the purpose of expressing an opinion on the effectiveness of Eskoms internal controls. We believe that the compliance evidence we have obtained is sufficient and appropriate to provide a basis for our independent opinion in this report, for the defined scope as described above.

5.3 Use of our Independent Environmental Compliance Audit Report

This Independent Environmental Compliance Audit report has been prepared on behalf of the management of Eskom (SOC) Ltd & relative project management team for the sole purpose of reporting on the matter being audited in accordance with Conditions of the EMPr.

Fox Civil & Environmental Engineers Pty Ltd disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the management of Eskom, or for any purpose other than that for which this report was prepared.

5.4 Inherent Limitations

There are inherent limitations in performing an Independent Environmental Compliance Audit; for example, compliance audits are based on selective testing of the information being examined. It is possible that non-compliance may occur and not be detected. An environmental compliance audit is not designed to detect all instances of non-compliance with the EMPr, as it is not performed continuously throughout the Project activities and the procedures performed in respect of compliance with the EMPr are undertaken on a test basis. The conclusion expressed in this report has been formed based on the above limitations.

6. Statement of the Audit Methodology and Processes

This Independent Environmental Compliance Audit has been carried out based on a site visit to the Construction area of the Zonnebloem Power Line and Switching Station in Nkangala District Municipality, Mpumalanga Province. Key matters which were audited:

- Conditions of the EMPr
- Environmental Trainings and Inductions
- Method statements
- Management Plans
- Emergency Preparedness Plans
- Community complaints
- Any regulatory action (Letters, Penalty Notices, Prosecutions etc.) and outcomes
- The adequacy of strategies, plans or programs; whether they are consistent with current best practice (not just standard industry practice); and whether management systems, proposed actions and measures are adequate.

These requirements were achieved by the audit team through the following activities:

- Reviewing substantiating documentation.
- Interviewing responsible administrative, environmental and operational staff regarding operational control of activities that may have an adverse impact on the environment.
- Testing management methodologies, systems and processes for data capture from activities.
- Testing management methodologies, systems and processes for data and document management and audit trails.
- Assessing the environmental performance of the project and whether it is complying with the relevant requirements in the EMPr
- Assessing whether the project is complying with any relevant Environmental Protection Laws (including any assessment, plan or program required under these Laws).
- Reviewing the adequacy of any approved strategies, plans or programs required under these Laws.
- Testing other matters which came to the attention of the audit team leader during the planning and execution of the audit.

A summary of the Procedures undertaken as part of the Independent Environmental Compliance Audit is provided below.

Phase	Key Activity	Date(s)
Plan and Prepare	Plan and Prepare: <ul style="list-style-type: none"> • Ensured that both auditor and auditee were familiar with stipulations and regulations in both the EA and EMPr. 	5 th March 2021
Site Visit	Opening Environmental Induction on site	15 th March 2021
Site Visit	Perform audit tasks – 1 day on site. <ul style="list-style-type: none"> • Interviews with key staff • Site inspections, • Documentation requested • Photography 	15 th March 2021
Site Visit	Closing Meeting on site with preliminary audit findings	15 th March 2021
Data Requests	Issue additional data requests (photos) and follow up on key items from site visit	20 th March 2021
Perform	Review and Reporting <ul style="list-style-type: none"> • Review of audit evidence against conditions of the EMPr and other related documents • Audit findings and recommendations ranked 	31 st March 2021

Draft Report	Delivery of Draft Independent Environmental Compliance Audit Report.	07 April 2021
Review	Review of Draft Independent Environmental Compliance Audit Report by Eskom's Environmental and Project Management Team	08 April 2021
Final Report	Finalisation of Independent Environmental Compliance Audit Report, including assessment of comments on the Draft Report received by Eskoms Environmental and Project Management Team.	13 April 2021

a. Basis for Conclusion

The Auditor has made efforts to undertake a full and complete audit for and on behalf of the proponent in accordance with Condition 4.3 of the EMPr.

We have presented our findings under the following categories.

- The Environmental Management Programme;

Our findings include our reviews of any assessments, plans or programs required under the EMPr.

b. Findings

For each compliance requirement, the Auditor has assessed the extent to which the requirement has or has not been met. Compliance is assessed in accordance with the following table:

Finding	Reported as	Explanation
Complies	C	The auditee is fully in compliance with the condition or requirement. A recommendation for improvement may be made where appropriate.
Does not comply	NC	The auditee does not comply with the condition or requirement, wholly or in part. Recommendations for improvement are made.
Observation	O	An observation that does not constitute a non-compliance e.g., it may relate to an action that has been taken in the past in compliance with a condition or requirement, but the action may not have been initiated or completed within the time specified by the condition or requirement. Recommendations may be made for improvement if appropriate.
Not Applicable	N/A	The condition or requirement does not apply at the time of the audit because the action is no longer required (e.g. construction has ceased) or it relates to something that is required in the future. No recommendations are made.

c. Recommendations

Where appropriate a recommendation has been provided against each finding to achieve compliance or improve performance. These recommendations have been ranked, based on the auditor's opinion. This practical approach highlights those recommendations that are considered by the Audit Team to be the most important (Emergency or Urgent) and which must be addressed within an agreed time frame, and to distinguish them from those that can be managed through normal operational practices that do not require a target time for completion (Improvement or Normal), based on the following Environmental Recommendations Ranking (ERR) scheme:

Environmental Recommendations Ranking	
“E” (Emergency)	The defect is severe and poses immediate risk to the plant or the environment, to regulatory compliance or to the reputation of the organisation. This may include organisational (including management) defects that will lead to rapid deterioration of the plant or operations or the inability to securely and safely deal with an incident (i.e. lack of competent staff, failure of a management process, no emergency plan, inadequate equipment to deal with an emergency, lack of environmental security, etc). <i>Action: Management should ensure that action is committed to minimise or eliminate the identified risk immediately, or otherwise within a time frame agreed with the auditor, or as required by regulatory requirements or agreement with the appropriate government officials or agencies. In extreme cases, the deficiency must be corrected prior to the auditor departing the site.</i>
“U” (Urgent)	The defect presents a serious situation, but may not necessarily impact immediately on human health or safety, assets, the environment, property, security or the community. There may be a risk which is not immediate, of regulatory non-compliance or adverse publicity affecting the organisation's public image or business reputation. <i>Action: A firm deadline should be set by management to correct the deficiency by an agreed date.</i>
“I” (Improvement)	Improvement is required, and can be achieved through regular channels of management, maintenance, capital improvements, or assigned to environmental management staff. <i>Action: Documented action plans to achieve the recommended outcome should be established, e.g. through setting and reviewing Objectives and Targets or initiating a Work Order. Management may decide not to undertake the recommended improvement, and should document the reasons for not doing so.</i>
“N” (Normal)	No specific action is considered necessary, the recommendation is considered to be covered by the organisation's normal environmental management procedures; however it should be documented through Objectives and Targets or other process, such as a Work Order.
“N/A”	Not Applicable to this situation or at this time; there is no perceived risk to the environment or the community, no recommendation is made.

d. Format of Audit Report

The detailed analysis contained in this Audit Report is set out in– **Table of Findings, Audit Evidence and Recommendations**. This table is structured as follows:

- **Compliance Requirement** – a requirement of the Project EMPr. Where appropriate, compliance requirements arising from other sources including legislation, environmental assessments and Management Plans required as part of the Project, may be addressed in conjunction with related requirements of the Project EMPr.
- **Compliance** – the auditor's view of the auditee's compliance with the requirement.
- **Audit Finding** – results of the evaluation of the collected audit evidence against the Compliance Requirement.
- **Objective Evidence** – verifiable evidence in support of the audit finding (records, statements of fact, results of inspections or other evidence) that is provided by the auditee or identified by the auditor.
- **Recommendations** – the professional opinion of the auditor in relation to action to achieve compliance or to improve the auditee's environmental management of the site.

The table of Findings, Audit Evidence and Recommendations is supplemented by an **Audit Recommendations and Response Table** (Appendix 6). This table provides a ranking of the recommendations resulting from this audit based on the Environmental Recommendations Ranking (ERR) scheme as shown in the table in (c) above.

The ERR is designed to indicate priorities for the audit recommendations. It highlights those recommendations that are considered by the auditor to be the most important (Emergency or Urgent) and which must be addressed within an agreed time frame, and to distinguish them from those that can be managed through normal operational practices that may not require a target time for completion (Improvement or Normal).

7. Executive Summary

7.1 Audit Requirement

Independent Environmental Compliance Audit: Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province."

Auditing compliance against the following criteria:

- Conditions of the EA and EMP
- Method statements
- Management Plans
- Emergency Preparedness Plans
- Community complaints
- Any regulatory action (Letters, Penalty Notices, Prosecutions etc) and outcomes
- The adequacy of strategies, plans or programs; whether they are consistent with current best practice (not just standard industry practice); and whether management systems, proposed actions and measures are adequate.

Operations reviewed on the Project included:

- Construction site

A list of documents reviewed is provided in Appendix 1.

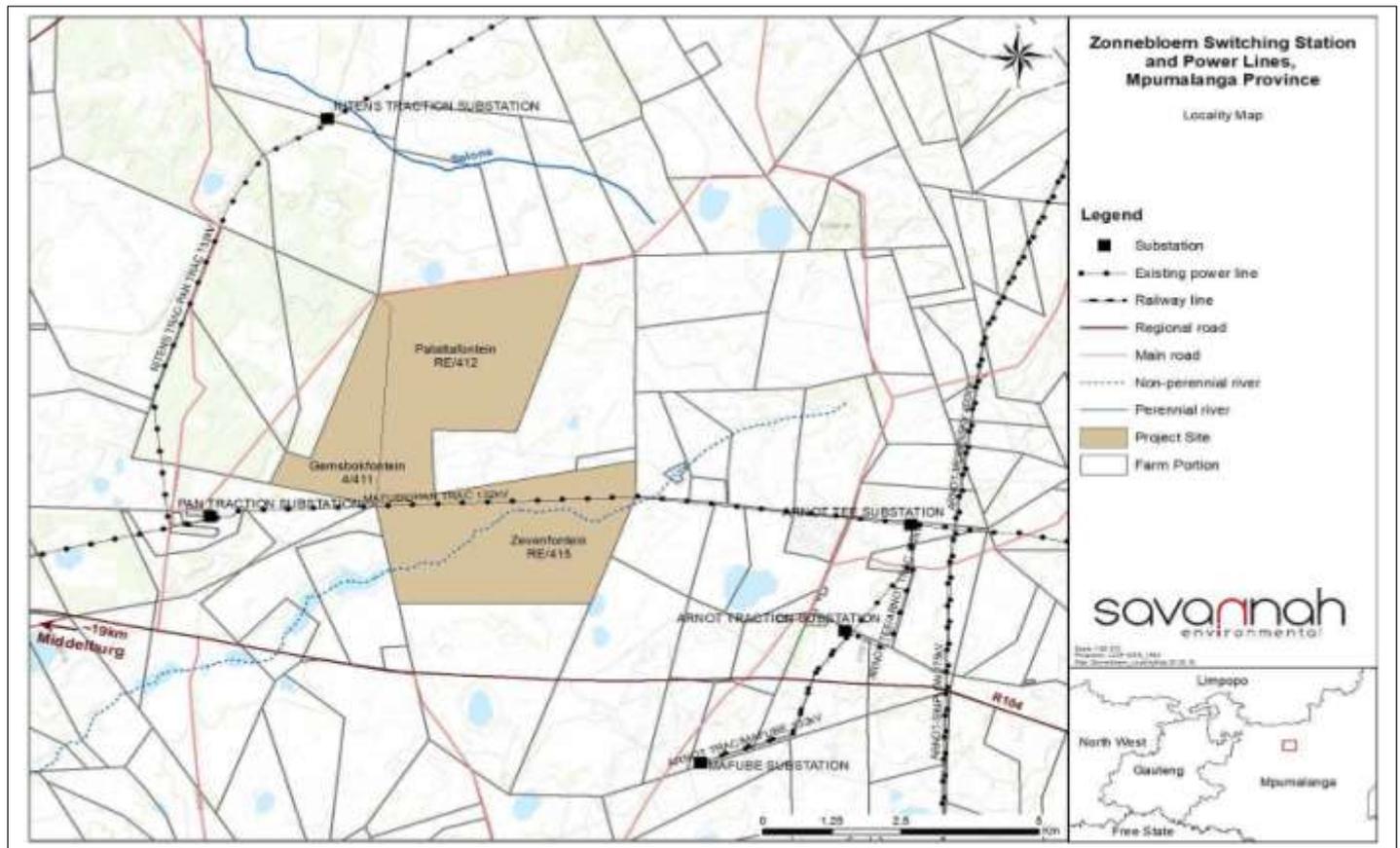


Figure 1: Locality Map showing Zonnebloem Power Lines and Switching Station.

7.2 Background

The activities for this project include the construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province. It is understood that any activity can pose various risks to the environment as well as the residents or businesses in the surrounding area. These possible risks should be taken into account during the planning phase of the development. An Environmental Management Programme (EMPr) was required to set the guidelines for effective mitigation of these risks. The implementation of this EMPr, through the appointed contractor, remains the responsibility of the developer.

The purpose of the EMPr is also to provide guidance to the project team with regard to the management of the environmental impacts and all waste generated. The EMPr will further assist in the prevention of pollution that may arise from the general waste that could be generated. In general, the purpose of this EMPr is to formulate migratory measures that should be made binding to all contractors during the demolition and construction period. The EMPr needs to be seen as a management tool which is proactive. It is thus required to protect the natural, social and socio-economic environment during construction of the road widening. This EMPr is intended for the management of all impacts caused. This EMPr is, therefore, a stand-alone document, which must be used on site.

This document should be flexible so as to allow the contractor to conform to the management commitments without being prescriptive. The management commitments prove that the anticipated risks on the environment will be minimised if they are adhered to consistently. The onus set out in the EMPr rests with the main Contractor and subcontractors, which promotes responsibility and commitment.

7.3 Compliance Summary

Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province compliance with the documents reviewed as found by this audit is summarised in the table below.

Compliance Result	Number of Results	Per Cent
Complies	6	$(6/7 \times 100) = 85.71\%$
Non-Compliance	0	-
Observation	-	$(1/7 \times 100) = 14.29\%$
Total Applicable	7	$(7/152 \times 100) = 4.61\%$
Not Applicable	145	$(145/152 \times 100) = 95.39\%$
TOTAL	152	-

Out of the total **7** compliance requirements audited, the proponent achieved an overall compliance rate of **6/7** which tallies to **85.71%** of the applicable compliance requirements, including all the compliance/observations results recorded.

There was **1 Non-Compliance** observed at the time of the audit. A total of **145 of the 152** requirements were **not applicable** at the time of the audit, as construction has not yet began.

7.3.1 General

Environmental compliance scores can be improved by effective and efficient corrective action. Proponent must ensure adequate and sanitary ablution facilities are provided for the construction team on site. The project management team is urged to familiarise themselves with the EMPr requirements before the next audit.

8. Findings, Audit Evidence and Recommendations

Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province.

Project Environmental Management Plan Scoring Table

Action required	RACI	Compliance	Frequency	Objective Evidence	Recommendations
Appointment and Duties of Environmental Auditor					
The Developer must appoint an independent Environmental Auditor who must monitor the contractor's compliance with the environmental management programme.	Developer	C	Once-off	ECO (FOXENG) Appointment Letter	
The priority of the Environmental Auditor is to report on the compliance of the development with the conditions outlined in the EMPr.	Environmental Auditor	C	Continuous	This is the first compliance audit for the project.	

Appointment and Duties of SHE					
The contractor must appoint a Safety, Health and Environmental Officer (SHE). This person will be required to monitor the situation with a direct hands-on approach, and ensure compliance and co-operation of all personnel. He should be fluent in the languages of the employees.	Contractor	C	Once-off	Provide ECO with SHE Officers Appointment Letter	
EMPr					
This EMPr must be made binding to the main contractor sub-contractors, the developer, as well as consultants and should be included in tender documentation for the construction contract.	Developer	C	Once-off	EMP was made available for viewing	EMP must be kept n file at the site camp & at the construction site for review by any relevant authority.
Environmental incidents					
The contractor must take corrective action to mitigate an incident appropriate to the nature and scale of the incident and must also rehabilitate any residual environmental damage caused by the incident or by the mitigation measures themselves.	SHE, Contractor	C	Continuous	No Incidents were experienced thus far in the construction process	

Emergency Preparedness

<p>The developer and the contractor shall provide phone numbers to the immediate neighbours of the development site for any emergency that might arise or any other communication that needs to take place between the neighbours, and the contractor.</p>	<p>Developer, Contractor</p>		<p>Once off, as required</p>	<p>N/A at the moment</p>	<p>An up to date Emergency contact details register must be maintained at all times. Provide relevant documentation.</p>
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Method Statements

<p>The Contractor shall submit written Method Statements to the Project Manager (PM) for the activities identified by the PM. Activities that will require method statements include:</p> <ul style="list-style-type: none"> • Storage facilities for any hazardous substances • Emergency procedures • The storage provisions for the materials and/or equipment • Solid and Hazardous Waste Management • Drainage and Storm water planning • Dust Control • Stockpiling area • Other information deemed necessary by the PM. • Traffic accommodation and management • Noise control • Preparation and operation of the Contractor's Yard and Office Site • Logistics of plant and materials deliveries and movements • Management of Heritage Resources • Blasting or heavy mechanised breaking • Access control and security 	<p>Contractor, PM, SHE</p>	<p>N/A</p>	<p>As necessary</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary.</p>
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Method Statements					
Method Statements shall be submitted at least ten working days prior to the proposed commencement of work on an activity to allow the PM time to study and approve the method statement. The Contractor shall not commence work on that activity until such time as the Method Statement has been approved in writing by the PM.	Contractor, PM,	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary.
Sense of place					
The planning of construction activities (construction site) must be carefully arranged so as to minimize the potential noise impact on adjacent landowners. The construction camp must preferably be positioned where it will least impact on adjacent landowners.	Contractor, PM,	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary.
Visual Impact					
Landscaping must enhance the aesthetic appeal of the development. The site camp should be keep tidy and free of litter.	Developer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary.

Erosion Sedimentation and flooding					
Erosion and flooding prevention measures must be considered such as protection berms on stockpiled material, sequential stripping of vegetation and re-vegetation of cleared areas as appropriate to the significance and season (wet or dry).	Engineer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Table 2: Construction Environmental Management Plan

Action required	RACI	Compliance	Frequency	Objective Evidence	Recommendations
Recruitment of labour					
The contractor must make use of local labour where possible in order to stimulate the local economy.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor must appoint one of his employees to act as a Safety, Health and Environmental Officer. This person will be required to monitor the situation with a direct hands-on approach.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The working width of the construction area must be clearly demarcated by the installation of coloured pegs prior to demolition. Particularly dangerous areas must be demarcated with danger tape. New Jersey Barriers should be used where practical if danger tape seems to be insufficient demarcation.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The lateral spread of the construction must be monitored on a weekly basis	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

The SHE will also be required to monitor unauthorised movement of demolition crew.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor should provide dustbins to be used during site preparation and surveying.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
To prevent excessive disturbance, the contractor should use existing disturbed or paved areas wherever possible.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
To prevent the deterioration of surface water quality, the contractor must provide adequate ablution facilities. 1 toilet per 15 workers and these are to be serviced regularly throughout the demolition/construction phase. Every effort must be made to prevent the contamination of surface or sub- surface water.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Toilet tissues must be provided in the toilets to be used on site	Contractor	0	Continuous	None at the moment	Auditor will inspect toilets and review ablution service documents upon the net audit in April 2021.

Prior to activities commencing on site, environmental induction training must be provided to all construction crew working on site.	Contractor, SHE	C	Once off and when new employees are recruited	Environmental Induction attendance register available	Induction training register is available on site.
Environmental Induction Training and toolbox talks of construction crew					
Environmental toolbox talks must be undertaken at least twice a month	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Construction site and surrounds are to be maintained in a clean orderly and presentable condition at all times. Litter clean up should form part of the construction crews' duties.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Site Housekeeping					
Regular inspections by the Contractor will be undertaken using checklists to ensure a minimum standard of orderliness is maintained.	Contractor, ECO	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

The waste skips should never be allowed to be filled to the brim causing a visual nuisance.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Litter generated by the construction crew must be collected in rubbish bins and disposed of weekly at registered waste disposal sites.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
General: waste					
All building rubble, solid and liquid waste etc. must be disposed of as necessary at an appropriately licensed refuse facility via the waste contractor – records must be kept of such disposal.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Ensure that no refuse wastes are burnt on the premises or on surrounding premises. No fires will be allowed on site.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The entire construction site must be kept in a clean and orderly state at all times.	Contractor, Demolition crew	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Ensure that no litter, refuse, wastes, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent/surrounding properties during or after the demolition period of the project are disposed of at dumping site as approved by the Council.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor shall take all reasonable and precautionary steps to ensure that uncontrolled fires are not started as a consequence of his activities on site.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Fire Prevention and Control					
The contractor shall ensure that there is adequate fire-fighting equipment available on site as per requirement of the local Emergency Services	Contractor, ECO	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor shall ensure that all site personnel are aware of the fire risks and how to deal with any fires that occur. This shall include, but not be limited to: <ul style="list-style-type: none"> • fire prevention talks • Posting of regular reminders to staff. 	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Emergency Procedures					
Any accidental fires, which occur, shall be reported to Environmental Management immediately and then to the relevant authorities.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor shall submit Method Statements covering the procedures and response plan for the main activities, which could generate emergency situations through accidents or neglect of responsibilities. These situations include, but are not limited to: <ul style="list-style-type: none"> • Accidental fires • Accidental leaks and spillages • Vehicle and plant accidents • Blasting (if required) 	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Accidental leaks and spillages <ul style="list-style-type: none"> • The Contractor shall ensure that his employees are aware of the procedure for dealing with spills and leaks. • The Contractor shall also ensure that the necessary materials and equipment for dealing with the spills and leaks is available on site at all times. 	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

<p>Hydrocarbon spills</p> <ul style="list-style-type: none"> •The source of the spill shall be isolated and the spillage contained using sand berms, sandbags, sawdust, absorbent material and/or other materials approved by the RE. •The area shall be cordoned off and secured. •The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown the spill. •The Contractor shall notify the occurs, relevant authorities of any spills that occurs. 	Contractor	N/A	As necessary		No spills were experienced by the time of the Audit
<p>The Contractor, SHE and ECO shall refer to the prevailing Disaster Management Plan/Procedure in regards to any traffic accidents that may occur involving passengers, flammable and combustible loads etc. The SHE must report to the EMC on the level of adequacy of the sites' disaster management.</p>	Contractor, SHE	N/A	As necessary		No accidents were experienced by the time of the Audit
<p>The Contractor shall assemble and clearly list the relevant emergency telephone contact numbers for staff and brief staff on the required procedures.</p>	Contractor	N/A	Weekly	N/A at the moment	Provide relevant documentation as necessary

<p>If potentially hazardous substances are to be stored on site, the Contractor shall provide a Method Statement detailing the substances/materials to be used together with the procedures for the storage, handling and disposal of the materials in a manner which will reduce the risk of pollution that may occur from day to day storage, handling, use and/or from accidental release of any hazardous substances used.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Monitor daily - weekly</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Hazardous Substances</p>					
<p>Hazardous chemical substances used during demolition shall be stored in secondary containers.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Monitor daily - weekly</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The relevant Material Safety Data Sheets (MSDS) shall be available on Site. Procedures detailed in the MSDS shall be followed in the event of an emergency situation.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Monitor daily - weekly</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The Contractor must ensure that all hazardous chemical substances are labelled, packed, transported and stored in order to avoid the spread of contamination.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Monitor daily - weekly</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

All hazardous chemical substance waste must be disposed of in accordance with the Hazardous Chemical Substances Regulations, 1995 (Regulation 15). The waste contractor to keep accurate records.	Contractor	N/A	Monitor daily - weekly	N/A at the moment	Provide relevant documentation as necessary
The waste, resulting from the use of hazardous materials, shall be disposed of at a hazardous waste disposal site as approved by the PM. Storage and disposal of waste is regulated through other legislation, which should be complied with i.e. the Occupational Health and Safety Act.	Contractor, PM	N/A	Monitor daily - weekly	N/A at the moment	Provide relevant documentation as necessary
The Contractor shall comply with all standard and legally required health and safety regulations as promulgated under the Occupational Health and Safety Act and associated regulations.	Contractor, RE	N/A	Daily	N/A at the moment	Provide relevant documentation as necessary
Health and Safety					
The Contractor must provide and maintain personal protective equipment and facilities to employees working with hazardous chemical substances.	Contractor	N/A	Daily	N/A at the moment	Provide relevant documentation as necessary
Ensure that the handling of equipment and materials is supervised and adequately instructed.	SHE, Contractor	N/A	Continual	N/A at the moment	Provide relevant documentation as necessary
Official training in the correct fit, use, care, storage and limitations of all Personal Protective Clothing, Respiratory and Hearing Equipment must be given to the employees.	Contractor	N/A	Daily	N/A at the moment	Provide relevant documentation as necessary

<p>The Contractor shall provide a standard first aid kit at the site office of each camp and/or at additional identified locations where needed.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The contractor must take corrective action to mitigate an incident appropriate to the nature and scale of the incident and must also rehabilitate any residual environmental damage caused by the incident or by the mitigation measures</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Environmental incidents</p>					
<p>Working hours should be adhered to in order to limit impacts to employees, local residents and the general public. Weekdays working hours should be between 07:00 to 18:00 and Saturdays from 08:00 to 13:00. Consultation with the neighbours must be conducted when stipulated working hours are exceeded.</p> <p>Should the contractor need to work outside normal working hours the contractor shall issue sufficient notice to residents and affected parties in this regard.</p>	<p>Developer, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

Working Hours					
Proposed out of work hours scheduled must be tabled, discussed and agreed upon a month prior to the start of such work at the monthly Committee meeting. This should be followed with a report-back at the next meeting on the extent and impact of the actual works that have occurred.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All forms of dust/air pollution must be managed in terms of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965), this includes the control of noxious and offensive gases, smoke, dust and vehicular emissions. Under no circumstances may heavy smoke be released into the air.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Air Pollution					
Active earth work areas, stockpiles and loads of soil being transported must be watered to reduce dust.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Work must be stopped if excessive dust is observed, or phase down while the source is being actively investigated and suppression measures are implemented.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Dust production must be controlled by regular watering of all exposed surfaces and works area, when needed, particularly in dry periods	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Points of ingress and egress onto public roads must be regularly cleaned for dust and mud.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All vehicles transporting material that can be blown off (e.g. soil, rubble etc.) must be covered with a tarpaulin	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vehicles to be used during the construction phase are to be kept in good working condition so as not to be the source of excessive fumes.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All areas disturbed during demolition that are not required for a specific activity must be re-vegetated (if applicable).	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Diesel exhaust emissions from heavy machinery on site (excavators, front end loaders and hauling trucks) must be controlled and minimised.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Construction activities should preferably take place during the dry winter months.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Erosion, sedimentation and flooding					
Storm water on the site must be managed as determined in the approved water management plan.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vegetation clearance must be done sequentially and protection berms constructed around stockpiled material.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
No stockpiles or construction materials may be stored or placed within any temporary drainage lines on site, nor on sidewalks surrounding the property.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Stockpiled material must be protected against erosion from storm water to ensure no impact on watercourses or storm water drains in the area.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All trenches and excavation works must be properly backfilled and compacted.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor must rehabilitate the construction camp once construction activities have terminated.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Where necessary, damaged areas shall be cordoned off to enhance rehabilitation.	Contractor	C	Continuous		

<p>Construction equipment and machinery must be kept in a demarcated area. The loss of oils and fuel onto the ground must be limited and contained. Where oils have leaked into the soil, this soil must be removed and appropriately stored for disposal of at an approved landfill site at the end of the construction phase. Drip trays must be used under all equipment.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The temporary storage site for construction rubbles from demolition that require to be reused during construction should not be located within a 100 year flood line (if applicable).</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

Surface and ground water pollution					
Spill kits must be available in all vehicles that transport hydrocarbons for dispensing to other vehicles on the demolition site. The dispensing devices (pump heads) must be compatible with the vehicles to which they are dispensing. In addition the dispensing devices must be fitted with the necessary valves / apparatus that will ensure that the nozzles do not drip fuel after pumping has stopped. Refuelling should take place in a centrally located area and must comply with the Occupational Health and Safety Act (Act No. 85 of 1993)	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
No uncontrolled discharges from the site / working area to depressions shall be permitted. All discharge points will require approval e.g. wastewater discharges include concrete mixing, vehicle washing etc.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Ensure that excavated and stockpiled soil material is stored and bermed on the higher lying areas. To prevent erosion of material that is stockpiled for long periods, the material must be retained in a bunded area.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vegetation clearance must be kept to a minimum to reduce the risk of siltation (if applicable).	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Concrete shall be mixed on mixing trays only, not on exposed soil or surfaces . Concrete shall be mixed only in areas, which have been specially demarcated for this purpose.	SHE, Contractor	N/A	Ongoing		No concrete mixing as yet in the construction process
Stormwater shall not be allowed to flow through the site where it can exit the site and reach beyond the site boundaries	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All construction materials liable to spillage are to be stored in appropriate structures with impermeable flooring.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Storm water at the construction/construction camps must be managed so as to reduce potential silt loads in storm water run-off. Measures must be implemented to distribute storm water as evenly as possible to avoid point sources of erosion.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor shall provide and maintain portable chemical toilets for demolition crews. Maintenance must include their regular removal without sewage spillage.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Under no circumstances may ablutions occur outside of the provided facilities.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

<p>Construction vehicles are to be maintained in good working order, to reduce the probability of leakage of fuels and lubricants. No servicing of vehicles is to be undertaken in close proximity to watercourses.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Construction activities and the use of construction machinery should be limited to between 06h00 to 18h00 on weekdays.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>No fires may be ignited with the intent to destroy the flora on site and surrounding properties.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

Use of vegetation					
The use of indigenous trees and shrubs should be optimized in the landscaped areas and open spaces (if applicable).	Developer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
To eliminate vegetation destruction, the main construction camp must be placed in an area that is not sensitive and already disturbed. No vegetation (trees) may be cut for the purposes of cooking fires or as a heat source.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Impacts on Vegetation					
No tree shall be removed unless the removal thereof is unavoidable. Trees that are to be removed shall be uprooted and placed at a nursery or suitable place as advised by a horticulturist.	Contractor, Engineer, Horticulturist, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Noise Pollution					
Inform residents of nearby residential areas of planned noisy activities outside the timeframes stated above.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Institute noise control measures throughout the construction phase for all applicable activities, including the demolition times.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Demolition and Construction activities must abide by the national noise laws and the municipal noise by-laws with regard to the abatement of noise caused by mechanical equipment. In the absence of bylaws, national regulations on noise control must be complied with.	Contractor, SHE,	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Prior to blasting (if required), the contractor must inform the adjacent landowners at least a few days in advance.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Hoardings and/or other noise barriers shall be erected around critical work areas to act as acoustical barriers and minimise noise emissions to the surrounding areas	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All activities on site must comply with the regulations of the Animal Protection Act (Act 71 of 1962).	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Impact on animal life					
No faunal species are to be removed, killed, maimed or injured during construction activities.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Litter accumulating on the site must be controlled, collected and disposed of at an approved landfill site.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Ensure that only suitably qualified personnel use construction vehicles	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

General: Crime, safety and security					
Ensure that the contact details of the police or security company and ambulance services are available on site.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Limit access to the construction crew camp to construction workers through access control.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Comply with the requirements of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) requirements.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Ensure that the handling of equipment and materials is supervised and adequately instructed.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vehicular traffic during construction activities must be limited to a maximum speed limit of 30 km/hr.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Site notices informing the public of the planned activities must be placed at visible locations a few days prior to any blasting.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Erect signs and/or danger tape around the exposed excavations to warn the public of the inherent dangers.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
No hawkers and food vendors shall be allowed adjacent to the construction site and the heritage site in order to avoid litter and security issues.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Signs indicating date and time of blasting to be erected on site perimeter (if applicable).	Developer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Placement of explosives to ensure that blast is directed into site and not outwards. Sufficient cover material to be placed over the rock face to prevent fly rock.	Blasting Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Any complaints of damage to be investigated immediately and photographic record to be maintained.	Developer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Ensure that excavated and stockpiled soil material/ construction rubbles is stored and bermed on the higher lying areas of the site and not in any storm water run-off channels or any other areas where it is likely to cause erosion or where water would naturally accumulate.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Removal of material Stockpiling soil					
The areas where excavated soil will be stockpiled must be bordered by berms to prevent soil loss caused by rain.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Protection of heritage resources					
Upon receipt of such notification, the SHE will arrange for the excavation to be examined by an Archaeologist as soon as possible.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

<p>Archaeological material, by its very nature, occurs below ground. The Contractor should therefore keep in mind that archaeological sites might be exposed during demolition. Should any archaeological artefacts be exposed during excavation, work on the area where the artefacts were found, shall cease immediately and the SHE shall be notified as soon as possible. If any are noticed, demolition personnel must be alert and must inform the SAHRA should they come across any cultural/archaeological findings.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Under no circumstances shall archaeological artefacts be removed, destroyed or interfered with.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Any archaeological sites exposed during demolition activities may not be disturbed prior to authorisation by the South African Heritage Resources Agency or any appropriate Authority.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>All construction staff working close to such a site should be properly briefed to ensure the safeguarding of the heritage resource.</p>	<p>Contractor, SHE</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

The Developer and Contractor must ensure that heritage sites, structures older than 60 years, and archaeological or palaeontological sites that are protected through law i.e Heritage Resources Act (No.125 of 1999)	Developer, Contractor, SHE.	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Aesthetic / visual					
Prevent unnecessary removal of vegetation outside the width of the working area by clearly demarcating the working area.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Provision of water					
Sufficient potable water shall be provided for drinking, cooking and ablutions.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vehicle equipment fuelling and maintenance					
In the event of a breakdown, immediate steps shall be taken to prevent any spillage.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

<p>Drip trays (minimum of 10cm deep) are to be placed under all vehicles if they stand for more than 3 hours. – The surface area of the drip trays will be dependent on the vehicle and must be large enough to catch any hydrocarbons that may leak from the vehicle while standing. – The depth of the drip tray must be determined considering the total amount / volume of oil in the vehicle. The drip tray must be able to contain 110% of the total amount / volume of oil in the vehicle.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Spill kits must be available in all vehicles that transport hydrocarbons for dispensing to other vehicles on the demolition site. The dispensing devices (pump heads) must be compatible with the vehicles to which they are dispensing. In addition the dispensing devices must be fitted with the necessary valves / apparatus that will ensure that the nozzles do not drip fuel after pumping has stopped.</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Ensure that the necessary signage and traffic measures are implemented for the safety of the general public road users and workforce.</p>	<p>Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

Traffic Impact					
Deploy traffic point's men where necessary to ease traffic flow and congestion at busy areas of construction.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Utilise traffic calming and monitoring measures such as traffic lights, video monitoring	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Vehicular movement beyond the property boundaries should be limited during peak hours. Access to the site must follow current or proposed routes. Approval from the Local Council to be obtained.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The contractor shall prepare a rehabilitation plan prior to commencement of the rehabilitation	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Rehabilitation					
Following completion of the construction phase all foreign materials must be removed from site and the area cleared.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
On completion of construction, the campsite must be rehabilitated through the removal of all facilities, waste and any other feature constructed or established during the use of the campsite.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

All areas devoid of vegetation or where soils have been compacted due to the traffic must be scarified or ripped and, if necessary, fertilized and seeded with an indigenous vegetation.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Work areas will be rehabilitated as soon as possible after completion of construction activities in an area, to minimise the potential for erosion and maximise the established time after revegetation, This is especially applicable to the site camp area. The rehabilitation process will include 3 main activities: shaping, top-soiling and revegetation to reinstate ground surface and cover.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The temporary dump site must be cleared of any remaining construction material and the area restored.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All foreign structures brought on site during site establishment must be removed off site.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
No construction equipment must be left on site and all disturbed areas must be rehabilitated back to its original state or a state that conforms with the principles of sustainable development	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

The SHE must conduct a final site walk about with the construction manager and the SHE from the contractor and compile a final audit report for the site	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
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Action required	RACI	Compliance	Frequency	Objective Evidence	Recommendations
Waste Management					
The developer should provide dustbins to be used during site preparation.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Prior to construction commencing, adequate waste bins should be provided in order to prevent littering on site.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The temporary dump site should not be located near any watercourses	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor must ensure that provision is made for the separation of waste into categories for easy recycling and disposal purposes. All waste from the construction must be segregated and identified by the different colour labelling system.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Developer must liaise with the contractor or the responsible company for the collection of general and hazardous waste on a regular basis, depending on the volumes and quantities generated thereof.	Developer	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

<p>The Developer must ensure that the temporary waste handling area (waste dump) has been clearly demarcated with regard to the waste stream it receives e.g. general, hazardous and recyclable wastes.</p>	<p>Developer</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>Hazardous waste must not be stored at the temporary dump site, only construction rubbles to be reused during construction e.g. asphalt level base and sub-base layers (crushed stone - G1 material) are to be temporary stored at the dump site.</p>	<p>Developer, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The Contractor must ensure that necessary arrangements are made beforehand for the safe disposal of hazardous materials generated on site by an accredited waste company.</p>	<p>Contractor, SHE</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The Contractor will also be required to make necessary arrangement for the collection of recyclable waste that is generated on site to be temporary stored for reuse during construction</p>	<p>SHE, Contractor</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>
<p>The Waste handling and temporary dump site shall be provided with signs and display boards which inform everyone entering the site of the demarcated waste storage area.</p>	<p>Developer</p>	<p>N/A</p>	<p>Continuous</p>	<p>N/A at the moment</p>	<p>Provide relevant documentation as necessary</p>

All Waste Storage areas including areas where potentially hazardous waste is stored shall be adequately fenced in and secured to prevent any access of public members and unauthorised people.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Areas, Containers and Skips identified for the storage of general, recyclables wastes shall be clearly marked to indicate the intended purposes i.e., glass only.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor must abide to the waste minimisation principles (reduce, reuse, recycle and create energy) and make waste disposal a last option	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Building rubble if generated must be crushed and used as construction fill material	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Building rubble between 5m ³ - 10m ³ , skip loaders can be used and 210 litre steel drums with lids can be used for light waste	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Waste Contractor must ensure that a register is kept throughout the phases of the development of the quantities and characteristics of the waste recovered.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Information on waste register must include the origin of waste, type of waste, date of disposal offsite, identify of the collector.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Regular visual inspection of the waste at the point of temporary waste storage should be undertaken to ensure that waste is properly stored and does not cause a visual nuisance to the public	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
General waste shall be collected by a recognised service provider and be disposed of at a registered waste site.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All construction rubble shall be collected and properly stored at the temporary waste storage dump/site for reuse during reconstruction.	Contractor, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Hazardous wastes shall be collected by a recognised service provider for disposal in a registered hazardous waste site.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Scrap metals, steel, and glass must be collected in separate waste skips and each container intended for identified recyclable waste must be clearly marked, i.e. scrap metals only	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Litter generated by the demolition crew must be collected in rubbish bins and disposed of weekly at registered waste disposal sites.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

The Contractor must ensure that no refuse wastes are burnt on the premises or on surrounding premises. No fires will be allowed on site.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The construction site must be kept in a clean and orderly state at all times (where applicable)	Contractor, Construction crew	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Wet waste should by no means escape from the waste truck whilst in transit.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor must ensure the Waste collection vehicles, when collecting waste from site, are equipped with covers to prevent waste from being blown off the waste collection vehicle during transportation.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor must ensure that no litter, refuse, wastes, rubbish, rubble, debris and builders wastes generated on the premises be placed, dumped or deposited on adjacent/surrounding properties during or after the construction period of the project are disposed of at dumping site as approved by the Council.	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Should any hazardous wastes be temporary stored on site, the Contractor shall provide a Method Statement detailing the substances/materials to be used together with the procedures for the storage, handling and disposal of the materials in a manner which will reduce the risk of pollution that may occur from day to day storage, handling, use and/or from accidental release of any hazardous substances used.	Contractor,	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Hazardous chemical substances used during construction shall be disposed of appropriately.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Used oil from demolition must be collected in drums and stored properly. This must be disposed of as hazardous waste.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The waste, resulting from the use of hazardous materials, shall be disposed of at a hazardous waste disposal site as approved by the construction manager. Storage and disposal of waste is regulated through other legislation, which should be complied with i.e. the Occupational Health and Safety Act.	Contractor,	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
The Contractor and the SHE must ensure that all persons involved in waste collection, sorting, transport and disposal have undergone the necessary training.	Contractor. SHE	N/A -	Continuous	N/A at the moment	Provide relevant documentation as necessary

The Contractor shall keep records for the regular collection of all waste types and disposal thereto, details of waste company responsible for waste collection. Such record is called the manifest document and should be kept at all times.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Waste storage areas must have adequate provision in place to prevent fires.	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
No construction waste (asphalt level base and sub-base layers (crushed stone - G1 material) shall be retained on site for a period exceeding that which is specified in this EMPr (Not more than 18 months)	Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Containers must be emptied frequently to avoid rodents, insects or any other organisms accumulating on the site and becoming a health hazard to the environment	Construction crew, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
All forms of dust/air pollution must be managed in terms of the NEMA Air Quality Act (AQA) 2004, (Act 39 of 2004); this includes the control of noxious and offensive gases, smoke, dust and vehicular emissions. Under no circumstances may heavy smoke be released into the air.	Developer, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Wet all unprotected demolished rubbles with water to suppress dust pollution during dry and windy periods.	SHE, SHE	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary
Ensure proper rehabilitation of disturbed areas in order to minimise bare patches (if applicable)	SHE, Contractor	N/A	Continuous	N/A at the moment	Provide relevant documentation as necessary

Appendices

Appendix 1 – Documents Reviewed

Appendix 2 – Persons Interviewed

Appendix 3 – Photographic evidence

Appendix 4 – Supporting documentation

Appendix 5 – Complaints register

Appendix 6 – Audit Recommendations and Response Table

Appendix 1 Documents Reviewed

No.	Document Title	Citation (as referred to in Audit Report)
1	Environmental Management Plan	EMPr
2	Environmental Induction Training Register	Environmental Induction

Appendix 2 Persons Interviewed

Name	Position
Lerato Mathibela	Environmental Technician

Appendix 3 Audit Photographs



Figure 1: Construction area (15th March 2021)



Figure 2: Works in Progress (31st March 2021)



Figure 3: Poles for Power Line (31st March 2021)



Figure 4: Material for power lines (31st March 2021)

Appendix 4

Supporting documentation

No.	Document Title	Citation (as referred to in Audit Report)
1	Environmental Authorisation	EA
2	Environmental Management Programme	EMP/EMPr

Appendix 5 Complaints register

Date Received	Registered via	Details of Complaint	Category	Response & Action Required	Open/Closed

Appendix 6 Audit Recommendations and Response Table

Requirement	Compliance	Recommendation	Proposed Action	Target Completion Date	Responsibility
ENVIRONMENTAL MANAGEMENT PLAN PERFORMANCE CONDITIONS					

Construction of a Power Line and Switching Station at Eskom Zonnebloem, Nkangala District Municipality, Mpumalanga Province