

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY
ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

REPORT NO. 4- February 2023

DEA REFERENCE NO. 14/12/16/3/3/1/2114/AM2



PREPARED FOR ESKOM HOLDINGS (SOC) LIMITED

Eskom Holdings SOC Limited

Contact: Tshililo Nekhalale

Email: NekhalT@eskom.co.za

Submitted by:



I. DETAILS OF THE ENVIRONMENTAL AUDIT REPORT AUTHOR

SENKOSI ENVIRONMENTAL CONSULTANTS	
NAME OF AUTHOR	Mr. Sipho Zulu
DESIGNATION	ENVIRONMENTAL COMPLIANCE OFFICER
QUALIFICATIONS	BSc Enviro. Man (UWS); Proj. Man Diploma (UP); Environmental Law (UNW); Business Comms (UNISA)
AFFILIATIONS	EAPASA (2019/1137); ELA (2022/521/GP); (IAIASA- 7032); (PMSA-17383381)
CONTACT NO.	+(27) 72 145 2514
EMAIL	Sipho@senkosi.com

II. DECLARATION OF THE AUTHOR

I ...**Siphosenkosi Zulu**....., on behalf of Senkosi Environmental, as the appointed independent environmental practitioner ("EAP") hereby declare that I:

- act/ed as the independent EAP in this application;
- regard the information contained in this report to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have ensured that information containing all relevant facts in respect of the application was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all interested and affected parties were considered, recorded and submitted to the competent authority in respect of the application;
- have kept a register of all interested and affected parties that participated in the public participation process;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and

**ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY
ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION**

February 2023

- I am aware that a false declaration is an offence in terms of the EIA regulations.



Signature of the Environmental Assessment Practitioner:

Name of company: Senkosi Environmental

Date: 10/02/2023

CONTENTS:

1. INTRODUCTION	5
1.1 Objective and Scope of this Environmental Audit	5
1.2 Credentials of the Independent Environmental Auditors	6
1.3 Requirements for Environmental Auditors	6
1.4 Environmental Audit Team	7
1.4.1 CVs and Declarations of Independence	7
1.5 Environmental Audit Methodology	7
2. SUMMARY OF MAIN FINDINGS	8
2.1. Non-Compliances	8
2.2. COMPLIANCES	9
3. COMPLIANCE MONITORING	9
4. PHOTOGRAPHIC EVIDENCE OF THE FINDINGS	32
5. RECOMMENDATIONS	37
6. CONCLUSION	40

LIST OF TABLES:

Table 1: Compliance Rating	9
Table 2: Compliance to the EA Conditions	10
Table 3: Compliance to the EMPr	24

LIST OF FIGURES:

Figure 1: Traffic calming measures well implemented on site	32
Figure 2: All stationary vehicles had drip trays underneath to prevent soil and groundwater contamination.	33
Figure 3: Evidence of backfilling taking place on the day of the audit	33
Figure 4: Evidence of waste bins on site	34
Figure 5: Evidence of proper signage on site	34

1. INTRODUCTION

Senkosi Environmental Consulting, the appointed independent Environmental Control Officer (ECO) for the proposed Eskom Holdings (Soc) Limited Battery Energy Storage System (Bess) Elandskop Substation, located within the Msunduzi and Mpendle Local Municipalities, KwaZulu-Natal province conducted the third audit on the 3rd of February 2023. This environmental audit report has been prepared in compliance with Section 34 of the EIA regulations 2014 (as amended), promulgated under the National Environmental Management Act, 1998 (Act 107 of 1998). The report presents the audit findings of the audit which was conducted against the Environmental Authorization (EA) issued by the Department of Forestry, Fisheries and Environment (DFFE) as well as the approved Environmental Management Programme (EMPr).

Section 34(2) of the 2014 EIA Regulations (as amended) [L01] requires an environmental audit report, “compiled by an independent person ... to provide verifiable findings, in a structured and systematic manner, on

- a) the level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorization (EA) and Environmental Management Programme (EMPr) and, where applicable, the closure plan; and
- b) the ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity”.

1.1 Objective and Scope of this Environmental Audit

The EMPr for the facility was revised in April 2019 to comply with condition 23 of **DEA Ref: 14/12/16/3/3/1/2114/AM2** which requires an Environmental Management Plan (EMP) to be compiled, or an existing operational environmental management system to be amended to include the operations of the authorised activity. In accordance with Appendix 7 of 2014 EIA Regulations (as amended) [L01] the purpose of conducting an EMPr audit is to:

- (a) report on-
 - (i) the level of compliance with the conditions of the environmental authorization and the EMPr; and
 - (ii) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr;
- (b) identify and assess any new impacts and risks as a result of undertaking the activity;
- (c) evaluate the effectiveness of the EMPr;
- (d) identify shortcomings in the EMPr; and
- (e) identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr.

1.2 Credentials of the Independent Environmental Auditors

Senkosi Environmental is a Level 1 B-BBEE, South African environmental consulting company and has been in existence for 16 years. We pride ourselves in professional advisory services and product delivery to our clients. The service lines offered by Senkosi Environmental include:

- Environmental Screening Assessments.
- Environmental and Social Impact Authorizations.
- Environmental Auditing and Compliance.
- Monitoring of Air, Water, Waste, Soil and Sediment.
- Sustainability management and reporting.
- Advisory Services.
- Climate Change and Air Quality
- Due Diligence Investigations.
- Products and supplies; and
- Safety Equipment.

1.3 Requirements for Environmental Auditors

The National Environmental Management Act (NEMA) and the 2014 EIA Regulations (as amended) [L01] requires an independent person with the relevant environmental auditing expertise to conduct the assessment and prepare the environmental report. The environmental auditor is required to have the following skills, attributes and abilities:

Independent and Objective

The environmental auditor should have the ability to unravel the real concerns behind stated issues, have the ability to separate issues from personalities, cultural perspectives and emotions, have empathy towards all viewpoints and prevent vociferous viewpoints from being the only ones that are heard. The environmental auditor is to remain independent and perform work in an objective manner, even if this results in views and findings that are not favourable to the holder of the authorization.

Expertise in conducting environmental impact assessments

The environmental auditor should be knowledgeable of and be able to conduct investigations of the environment likely to be significantly affected by the authorized activity, investigate potential impact consequences for or impacts on the environment and also evaluate potential alternatives.

Comply with the Act, the Regulations and other applicable legislation

The environmental auditor should have knowledge of the environmental legislation (Acts, Regulations and guidelines) that have relevance to the authorized activity. All relevant matters to be taken into consideration when preparing the environmental audit report.

Communicate and Disclose Information

The environmental auditor is required to disclose to the holder of the authorization and the competent authority all material information in their possession that reasonably has or may have the potential of influencing any decision to be taken in respect to the authorized activity; or that may influence the objectivity of the environmental audit report. The environmental audit report must provide verifiable findings, in a structured and systematic manner and be made

available to interested and affected parties (including organs of state in all spheres of government that may have jurisdiction over any aspect of the activity) as required by the competent authority.

1.4 Environmental Audit Team

The environmental audit team to conduct the assessment and who prepared the audit report are:

Mr Siphosenkosi Zulu is a Registered Environmental Assessment Practitioner (EAPASA), environmental compliance and sustainability practitioner with 20 years of experience. Siphosenkosi specialises in Strategic Environmental, Social, Economic and Sustainable Development projects. Audits conducted in the past include the Water license audit at Kusile Power station, the Construction of a 114km line in Free State, Virginia and the PDP construction in Northern Cape, Limpopo, KZN and Mpumalanga province. Siphosenkosi has obtained numerous Environmental Authorisation and Water use licenses in his career. For more information, a cv is attached with more details of his capabilities and expertise.

1.4.1 CVs and Declarations of Independence

Comprehensive CVs for the environmental auditors are attached in **Annex B**.

1.5 Environmental Audit Methodology

Senkosi Environmental performed an independent assessment of the Elandskop BESS compliance with the EA and performance against the 2020 EMPr requirements. Preparation of the Audit was conducted by communicating with the EO on site. She was consulted to confirm her availability on site and all other members of the site management team. Dates were set and confirmed with key members.

Arrival was at 08:30 in the morning and a meeting was held to discuss how the audit would be conducted for that day. Issues were discussed relevant to the audit. A safety presentation was made by a safety officer on site addressing among other things the emergency situation that may arise. Attendees were told where and how to move to the point of assembly should there be an emergency. The attendance register was to be used to account for all personnel on site. An attendance register was completed by all members attending the audit session. See attached appendix showing the attendance register. The key delivery milestones for the Environmental Audit are presented below:

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

FEBRUARY 2023

Engagement Milestones	Delivery Date
Initiation of Communication for Audit Plan	22 November 2022
Site visit and initial list of audit findings	10 February 2023
Draft Audit Report submitted to client	16 February 2023
Receipt of comments & review of draft report from Client	17 February 2023
Final Audit Report	18 February 2023
Engagement Close-out Meeting proposed for	19 February 2023

2. SUMMARY OF MAIN FINDINGS

The environmental audit was conducted on the 10th of February 2023. On the day of the audit, it was noted that the topsoil was partially covered as the contractor was still awaiting the netting to be delivered. It was also noted that the alien invasive vegetation (kukui grass) that was cleared on site to prepare the site for the construction activities had not been entirely removed from the topsoil. The drip trays were not properly kept on nor in a good condition, the contractor was advised to replace them.

Additionally, it was noted that the access road that had been proposed in the preceding audit had already been built and that the vegetation that was cleared in order to prepare for the road construction is still kept on site and is awaiting proper disposal. No construction activities were taking place on the day of the audit due to the rain.

Correct signage and traffic calming measures were well implemented within the site. The waste bins were properly labelled, closed and contained the designated waste type. The ablution facilities were well maintained and complied with the specifications of the EMP. Sufficient fire extinguishers were present on site and the service was up to date. The first aid was available.

2.1. Non-Compliances

The recorded non-compliances were as follows:

- ✓ The topsoil was partially covered.
- ✓ The alien invasive vegetation that was removed on site prior construction had not been properly disposed of.
- ✓ The drip trays were not properly kept on nor in a good condition
- ✓ In appropriate housekeeping was identified on site (the grass, steel and wooden waste at the back of the site was still not properly disposed of)

- ✓ Sand bags were still not placed along the edge of the trenched area to avoid silting and potential erosion.

2.2. COMPLIANCES

- ✓ The environmental file was present on site, and it contained all the necessary documentation.
- ✓ A security guard was available on site to control access.
- ✓ Sufficient fire extinguishers were provided and serviced.
- ✓ Stockpiles within the construction site did not exceed 2 meters in height.
- ✓ Proper signage and traffic calming measures were well implemented on site.
- ✓ The no-go areas were barricaded to control access.
- ✓ All stationary vehicles had drip trays underneath to prevent soil and groundwater contamination.
- ✓ The first aid kit was present on site.
- ✓ The ablution facilities are well maintained and serviced monthly. Proof of weekly service was provided.

3. COMPLIANCE MONITORING

The compliance monitoring was done against the approved EMPr and EA.

Table 1: Compliance Rating

Rating	Description	Abbreviation	Colour Code
Compliance	Fully Complying	C	
Opportunity for Improvement (to comply)	Complying with fraction of the conditions	OFI	
Non-Compliance	Not Complying to any of the conditions	NC	
Not Applicable	Conditions that are not applicable at the time of inspection	N/A	

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

FEBRUARY 2023

Table 2: Compliance to the EA Conditions

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
Scope of Authorization							
1. The holder of the authorization is responsible for ensuring compliance with the conditions contained in the Environmental Authorization. Including any person acting on the holder’s behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorization.					An environmental officer has been appointed to monitor and enforce compliance on site on a day-to-day basis.	Applicant	17 October 2022
2. The activities authorized may only be carried out at the property as described on page 4 of the EA					All construction activities were kept within the site boundary.	Applicant	10 February 2023
3. Any changes to, or deviations from, the project description set out in this authorization must be approved, in writing, by the Department before such changes or deviations may be affected.					There is no deviation from the project description.	Applicant	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
4. The holder of an EA must apply for an amendment of the EA with the Competent Authority (CA) of any alienation, transfer and change of ownership rights in the property on which the activity is to take place.					A letter from DFFE approving the change of name of property ownership for the application was presented. Ms. Tshililo Nekhalale has been appointed the new property representative.	Applicant	22 Nov 2022
5. This activity must commence within a period of five (5) years from the date of issue of this environmental authorization. If commencement of the activity does not occur within that period, the authorization lapses and a new application for environmental authorization must be made in order for the activity to be undertaken.					The activity commenced on 4 November 2022 and the EA was issued on 19 June 2020. Therefore, the activity commenced within a period of five (5) years from the date of issue of this environmental authorization.	Applicant	4 November 2022.
6. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.					The commencement of the activity was on the 4 th of November 2022. A letter was be sent to the DFFE.	Applicant	03 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
7. The holder of the EA must notify interested and affected party (I&AP), in writing and within twelve (14) calendar days of the date of the EA of the decision to authorize the activity. The notification must comply with the said conditions.					The I&APs were notified about the decision to authorize the activity within 14 days of the issue of the EA. The EA was issued on the 19 th of June 2020 and the I&APs were notified on 24 June 2020.	Applicant	20 June 2020
8. The notification referred to must- 8.1 Specify the date on which the authorisation was issued; 8.2 Inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014; 8.3 Advise the interested and affected party that a copy of the authorisation will be furnished on request and 8.4 Give the reasons of the competent authority for the decision.					The letter did not inform the I&AP about the reasons of the decision as stipulated in the National Appeal Regulations 2014.	Applicant	24 June 2020
Commencement of the Activity							

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
9. The authorised activity must not commence until the period of the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.					No appeal has been lodged.	Applicant	10 February 2023
10. The Environmental Management Programme (EMPr) submitted as part of the Application for EA is hereby approved. This EMPr must be implemented and strictly adhered to.					The contractor is complying with majority of the EMPr conditions, however, there are recurring non compliances that still need to be addressed. Please refer to the photographic evidence below (for example the mixed waste behind the site offices)	Applicant	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
Frequency and process of updating the EMPr							
11. The EMPr must be updated where the findings of the environmental audit reports, contemplated in conditions 23 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation of EMPr.					The EMPr has not been updated. However, there is an apparent requirement to update the EMPr as there seems to be some errors in the designated responsibilities.	ECO	10 February 2023
12. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.					The EMPr has not been updated.	ECO	10 February 2023
13. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulations 34 of GNR 982, The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department,					The EMPr will be submitted to the department once it has been updated.	ECO	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
prior to submission of the updated EMP _r to the Department for approval.							
Monitoring							
<p>14. The applicant must appoint an independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMP_r.</p> <p>14.1 The ECO must be appointed before commencement for any authorised activities.</p> <p>14.2 Once appointment, the name and contact details of the ECO must be submitted to the</p>					<p>An ECO was appointed, and the appointment letter was sent to DFFE.</p> <p>The weekly reports are submitted to the ECO by the EO on any incidents and transgressions.</p>	Applicant	03 August 2022

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
<p>Director: Compliance monitoring of the Department at Directorcompliance@environment.go.za</p> <p>14.3 The ECO must keep record of all activities on site, problems identified, transgressions noted and a task scheduled of tasks undertaken by the ECO.</p> <p>14.4 The ECO must remain employed until all rehabilitation, as required for implementation due to construction damage, are completed and the site ready for operation.</p>							
Recording and Reporting to the Department							
<p>15. All documentation e.g., audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the Director Monitoring of the Department at Directorcompliance@environment.gov.za.</p>					The ECO has already sent communication to the directorate.	ECO	24 January 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
16. The holder of the environmental authorisation must for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the Director: Compliance Monitoring of the Department at Directocompliance@environment.gov.za					Audit reports are done and submitted for the monthly audits.	Applicant	10 Feb 23
17. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GNR 982.					The audits are conducted monthly as required by the EA, and the delays were reported on the letter that was sent to the Department on 24 January 2023.	ECO	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
18. The holder of the EA must, in addition, submit an Environmental Audit Report to the Department within 30 days of completion of the construction phase (i.e., within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.					The construction activities are still underway.	ECO	10 February 2023
19. The environmental audit reports must be compiled in accordance with Appendix 7 of the 2014 EIA Regulations, as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as requirements of the approved EMPr.					The audit reports are compiled as per Appendix 7 of the EIA regulations, 2014 (as amended)		10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
20. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.					The reports are kept on site: <ul style="list-style-type: none"> The weekly inspection Environmental legal audit Monthly These are conducted by Tractional and audited by Eskom EO. ECO audit will also be placed on site once available.	Tractional EO Eskom EO	10 February 2023
Operation of the Activity							
Site Closure and Decommissioning							
21. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.					Not applicable	Applicant	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
Specific EA Conditions							
22. The holder of the EA must, prior to commencement of construction, inform this Department on the preferred technology or technology mixture of the BESS.					A letter informing the Department of the preferred technology was submitted on the 13 October 2022 to the department	Applicant	13 October 2022
23. The holder of the EA must ensure that the volume of dangerous goods on site does not exceed 500m³					The diesel bowser storing dangerous fuel is monitored to be kept at 300 liters and is always kept at the capacity of 300 liters.	Applicant	03 February 2023
24. Vegetation clearing must be limited to the required footprint for actual construction works and operational activities. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.					Vegetation clearing was only limited to the required footprint.	Applicant	10 February 2023
25. No exotic plants must be used for rehabilitation purposes. Only indigenous plants occurring within a ten (10) kilometer radius of the development site must be utilized.					Not applicable. The rehabilitation process has not yet been undertaken.	Contractor	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
26. Should any potential human remains be encountered during construction, work in the immediate vicinity of the find must be stopped and the KwaZulu-Natal AMAFA and Research Institute and SAPS must be notified.					No human remains have been identified.	Applicant/ Contractor	10 February 2023
27. No heritage material will be removed or relocated without confirmation from KwaZulu-Natal AMAFA and Research Institute as well as an accredited heritage professional specialist.					No human remains have been identified.	Applicant/ Contractor	10 February 2023
28. A horticultural specialist must be appointed to identify and relocate sensitive plant species prior to any site works.					The horticulturalist was not used but a Botanist.	Applicant	10 February 2023
29. An ongoing Alien invasive Management Plan must be compiled and implemented prior to construction activities.					The invasive plants were removed but not appropriately disposed of. The contractor was given 14 days to correct the situation. The end of 14 ends on 17 February 2023.	Applicant	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
30. A Landscape Plan must be submitted to the Msunduzi Municipality: Environmental Management Unit for comment and approval prior to site works commencing.					A letter was sent to Msunduzi Municipality, and it was approved. The letter from the municipality was obtained.	Applicant	14 October 2022
31. A species relocation plan must be compiled and submitted to the Msunduzi Municipality: Environmental Management Unit for comment and approval prior to site works commencing.					A letter was sent to Msunduzi LM and was approved.	Applicant	14 October 2022

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS						
EA Condition	Compliance				Recommendation/ Comments	Responsible Person
	C	OFI	NC	N/A		
32. A storm water management plan must be submitted to Msunduzi Municipality: Environmental Management Unit as well as the Msunduzi Roads and Drainage Management Unit for comment and approval prior to any site works commencing. The Storm Water Management Plan must address the impacts associated with the increase in hardened surface area and must address quantity and quality of the storm water discharged from the site and incorporate on-site storm water attenuation measures to ensure the proposed development is flood neutral. Post development storm water discharge volumes must not exceed pre-development volumes.					The stormwater management plan was submitted and approved by the Msunduzi Municipality.	Applicant
						23 November 2022

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO EA CONDITIONS							
EA Condition	Compliance				Recommendation/ Comments	Responsible Person	Action Date
	C	OFI	NC	N/A			
33. Once the final technology alternative is selected, a detailed fire management and protection plan must be compiled and submitted to the relevant Municipality for consideration prior to undertaking any construction activities.					The submission for consideration was done on 1 August 2022. But the response from the Municipality was only received on 20 November 2022. While the commencement was on or around the 1 st of November 2022.	Applicant	10 February 2022
GENERAL CONDITIONS							
34. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMP _r , must be made available for inspection and copying: 30.1 At the site of the authorised activity. 30.2 To anyone on request; and 30.3 Where the holder of the environmental authorisation has a website, on such publicly accessible website.					Copies are available on site and the Eskom website.	Applicant	10 February 2023

Table 3: Compliance to the EMP_r

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
General Construction Activities							
Environmental signage must be displayed on site including “no smoking”, “fire hazards”, etc.					Proper signage was available on site. Please refer to the attached photographic evidence.	Contractor	10 February 2023
Emergency numbers must be clearly displayed					Emergency numbers are clearly displayed.	Contractor	10 February 2023
Access fuel and other equipment stores must be strictly controlled					Access fuel and other equipment stores are strictly controlled.	Contractor	10 February 2023
Clearing of the Site							
The Contractor must do an initial alien plant clearance and three follow up clearances.					Alien plant clearance was undertaken but not appropriately disposed of as specified by the alien invasive management plan.	Contractor	November 2022

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
Site clearing must be limited to only the area designated for the specified works.					Site clearance was only undertaken within the site area.	Contractor	10 February 2023
"No-go" areas prior to earthworks commencing					The no-go areas were clearly barricaded	Contractor	10 February 2023
No unauthorized entry, stockpiling, dumping or storage of equipment in "no-go" areas, or outside the site boundary.					Access to the site is controlled by a security guard. All activities are kept within the site boundary.	Contractor	10 February 2023
Earthworks							
The earthworks operation must be carried out by a suitably qualified contractor.					The qualifications of the Contractor were submitted to the ECO	Contractor	10 February 2023
Storage, mixing, and disposal of cement and concrete							

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
Clean stormwater must be kept away from areas where it could be contaminated and must be directed to the stormwater drainage system					Clean stormwater is kept away from areas where it could be contaminated and must be directed to the stormwater drainage system	Contractor	10 February 2023
Soil Erosion							
Vegetation must not be removed unnecessarily					No vegetation was removed unnecessarily.	Contractor	10 February 2023
Soil erosion measures must be placed on sensitive areas like banks, slopes and towards the site boundary.					The contractor advised that the sandbags will be placed on the identified sensitive areas by the end of the following week.	Contractor	14 February 2023
All stockpiles must be covered with suitable material to prevent loss of sediment via wind/ water.					A portion of the topsoil was not covered. The issue will be rectified by the next audit.	Contractor	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
Topsoil (top 300mm layer minimum) must be removed prior to the construction by earthmoving equipment. Topsoil must be stored in heaps of not higher than 2m in a way that prevents damming. Stored topsoil must not be compacted.					The topsoil heaps were not higher than 2m.	Contractor	10 February 2023
Topsoil must not be used as fill material for backfilling of excavations on site.					Topsoil was not used as fill material for backfilling of excavations on site.	Contractor	10 February 2023
Disturbed sites must be rehabilitated as soon as construction in an area is complete and not left until the end of the project to be rehabilitated.					Not applicable as the rehabilitation process has not commenced.	Contractor	10 February 2023
Ground water and Surface water pollution							
An adequate number of chemical toilets for the staff must be provided and serviced regularly. The positioning of the toilets must be authorized by the ECO.					Sufficient toilets were provided, and proof of service was provided. The contractor was advised to make comments on the receipts	Contractor	10 February 2023

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
Spills that result in the contamination of ground and/or surface water must be reported immediately to the ECO.					No spillages were recorded on the day of the audit.	Contractor	10 February 2023
Spills must be managed in the following manner: <ul style="list-style-type: none"> ✓ Stop the spill ✓ Contain the spill ✓ Report significant spills to DWS and the Local Municipality Water and Sanitation Department. ✓ Remove spilled material for treatment/disposal. ✓ Determine any possible impact to soils, groundwater, storm water, etc. ✓ Undertake any necessary remedial actions ✓ Document the spill ✓ Employees involved in spill control must be using PPE 					No spillages were recorded on the day of the audit.	Contractor	10 February 2023
Cleaning on-site							

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFl	NC	NA			
A chemical spill kit must be present onsite at all times and once used it must be disposed of at a registered hazardous landfill site.					A chemical spill kit was present on site. Please refer to the attached photographic evidence.	Contractor	10 February 2023
Generation of general and domestic waste							
Refuse bins must be provided for domestic waste (lunch litter) and placed in designated eating areas and any other areas where deemed necessary to control littering.					Sufficient refuse bins were provided properly labelled.	Contractor	10 February 2023
Refuse bins must not overflow and must be emptied regularly. No littering is permitted on site.					The refuse bins were not overflowing on the day of the audit.	Contractor	10 February 2023
Building rubble must be kept separate from other construction waste.					The construction rubble was disposed of at the New England landfill site. Proof of disposal was provided.	Contractor	10 February 2023
All waste must be disposed of at approved landfill sites, no burning or burying is permitted.					Waste is disposed of at the New England landfill site.	Contractor	10 February 2023
Visual Quality							

ENVIRONMENTAL AUDIT REPORT FOR THE PROPOSED ESKOM HOLDINGS (SOC) LIMITED BATTERY ENERGY STORAGE SYSTEM (BESS) ELANDSKOP SUBSTATION

February 2023

COMPLIANCE TO THE EMPR CONDITIONS							
EMPr Condition	Compliance				Recommendation/Comments	Responsible Person	Action Date
	C	OFI	NC	NA			
The site must be well maintained and neat.					A mixture of waste including wood, steel, conductor cables, and general was observed on site. To be removed within 14 days.	Contractor	27 February 2023
Public safety and health							
First aid kits must be available on site as well as an incident records file					The first aid kit was available on site	Contractor	10 February 2023
Interaction with objecting parties at the site must be well documented. A complaints register must be readily available on site. Interaction with external parties must be courteous.					No complaints were recorded on the complaints register, however, local residents have complaints regarding the project.	Contractor	10 February 2023

4. PHOTOGRAPHIC EVIDENCE OF THE FINDINGS

Figure 1: Proper signage well implemented on site.



Figure 2: Evidence of a waste bins being properly labelled



Figure 3: Evidence of a waste bin containing the designated waste type



Figure 4: Evidence of ablution facilities being well maintained



Figure 5: Evidence of sufficient waste bins being provided on site



Figure 6: Evidence of the topsoil being partially covered



Figure 7: Serviced Fire extinguishers were present on site



Figure 8: Evidence of the designated smoking area



Figure 9: Evidence of the first aid kit being present on site



Figure 10: Evidence of toilets being serviced weekly

ENV COR 013(PTE 21061)

TEL: 0861 JUSLOOS
033 390 1567/3643
FAX: 086 560 1567
www.justloos.co.za

JUS LOOS
The night line for you!

EMAIL: service@justloos.co.za

DATE: 07/02/2023
DRIVER: KOGUCAN 164197

CUSTOMER: REMIN INVESTMENTS
ADDRESS: PASS MPHAPHENT ON ROAD TO GOSTON
ESKOM POWER STATION

NUMBER OF TOILETS: 4
NUMBER OF TOILET ROLLS: 8

TOILET TYPE: NF ☐ INT. NF ☐ SHOWER ☐ RH ☐
VIP ☐ PJF ☐ PJNF ☐ ARM ☐ DIS ☐

TOILET No.: 0222,0666,0908,1507

TIME IN: 14:18
TIME OUT: 14:46
NAME: Dale TK
SIGNATURE: Dale TK
TEL. No.:
COMMENTS:

Figure 11: All stationary vehicles had drip trays underneath



Figure 12: Evidence of a drip tray underneath a stationary vehicle



Figure 13: Evidence of drip trays being inappropriately kept on site and being in a bad condition



Figure 14: Evidence of no-go areas being barricaded



Figure 15: Evidence of the kukui grass being kept on site and awaiting proper disposal



Figure 16: Evidence of inappropriate housekeeping



5. RECOMMENDATIONS

- It is recommended that the contractor rectifies all the identified non-compliances within the specified timeframes.
- The recurring non-compliances shall be addressed before the next audit. The contractor needs to ensure that all the complaints (socio-economic and environmental) are recorded in the complaints register as stipulated in the EMPr.
- The receipts for the servicing of the toilets shall be fully completed (e.g., time in, time out and comments).

6. CONCLUSION

The site was found to be in a satisfactory condition on the day of the audit. The contractor was advised to rectify all the non-compliances before the next audit. Both the contractor and applicant have the responsibility to ensure that the identified non-compliances are rectified before the next audit report which is set to take place on the 17th of March 2023.