



## EXPANSION OF THE KOMSBERG MAIN TRANSMISSION SUBSTATION AND ASSOCIATED INFRASTRUCTURE NEAR SUTHERLAND, WITH THE KAROO HOOGLAND LOCAL MUNICIPALITY IN THE NORTHERN CAPE

### MONTHLY MONITORING REPORT

DATED: 28 MAY 2019

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## PROJECT INFORMATION

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**REPORT STATUS:** Final

**PROJECT TITLE:** Expansion of the Komsberg Main Transmission Substation (MTS) and Associated Infrastructure near Sutherland within the Karoo Hoogland Local Municipality in the Northern Cape Province.

**CLIENT:** Eskom SOC Ltd

**ENVIRONMENTAL CONSULTANTS:** Eagles Multi Skills Academy/ Consulting

**DEA REF. NO.:** 14/12/16/3/3/1/1482

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## REPORT COMPILATION RESPONSIBILITIES

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**REPORT COMPILED BY:**

A handwritten signature in black ink, appearing to read 'Mulalo Edson Ramurembiwa', written over a horizontal line.

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Mulalo Edson Ramurembiwa  
*Environmental Control Officer*



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## **EXECUTIVE SUMMARY**

In line with the requirements of the Environmental Authorisation (EA) and the Environmental Management Programme (EMPr) for Proposed expansion of the Komsberg Main Transmission Substation (MTS) and Associated Infrastructure near Sutherland within the Karoo Hoogland Local Municipality in the Northern Cape Province. The Environmental Control Officer (ECO) shall ensure implementation of the requirements of the EA and compliance with the requirements of the EMPr. This report presents observations made by the ECO including construction progress, Incidents, Non-Conformance Reports (NCR's) issued and Deviations.

Currently there is no open NCR and no incidents and no (0) deviation open.

During the current reporting period, Bulk earth works including excavation of different soil layers at the 132kV terrace, crushing of stones, building bund area for servicing or repair of construction vehicle, building bund for Hazardous Chemical Storage and septic tank are in progress.



## **1. INTRODUCTION**

This report serves as a report back on the compliance of the Construction on the expansion of the Komsberg Main Transmission Substation (MTS) and Associated Infrastructure near Sutherland within the Karoo Hoogland Local Municipality in the Northern Cape Province with the Environmental Authorisation (EA) (DEA Ref: 14/12/16/3/3/1/1482) and the Environmental Management Programme (EMPr) (dated January 2016) compiled for the development.

On 12<sup>th</sup> of May 2016 the Department of Environmental Affairs granted Eskom Holdings SOC Limited (hereafter referred to as “Eskom”) an Environmental Authorisation (EA).

Eagle Multi Skills Academy/ Consulting was appointed by Eskom Holdings SOC Limited as the Independent Environmental Control Officer (ECO) responsible for environmental compliance monitoring against the EA, EMPr and relevant legislations during the construction phase of the project until rehabilitation to fulfil requirements of Conditions of EA.

The ECO is obligated to monitor and report on compliance of activities undertaken by the contractor, to report on any non-compliants and non-conformances, record incidents if any, recommend corrective action required, and details of those non-conformances. This report will be submitted to the authority (DEA) and the Applicant/developer and the contractor for their records as required. This report reflects the observations and findings as observed by the ECO during the reporting period.

## **2. SCOPE OF THE REPORT**

The monthly compliance report is undertaken to monitor and record the Developer, Contractors and Sub-contractors against compliance with the requirements stipulated in the EMPr and the specific conditions of the EA, WUL, and other permits and licences issued for the construction on the expansion of the Komsberg Main Transmission Substation (MTS) and Associated Infrastructure for the reporting month.



### 3. ENVIRONMENTAL INDUCTION, AWARENESS AND TRAINING

All employees before assuming construction have undergone environmental awareness training detailing:

- What is meant by “Environment”
- Why the environment needs to be protected and conserved
- How construction activities can impact on the environment, and
- The Do’s and Don’ts on site.

Environmental awareness of different topics as per environmental calendar and any other significant topics including tool box talk are conducted to remind and refresh employees about the significance of protecting and conserving the environment.

### 4. INSPECTION FINDINGS

These are findings observed during walk through of the entire construction site conducted for the reporting month. See attached photographic inspection evidence on Appendix A.

**Table 1: Inspection findings.**

<b>EMPr Section</b>	<b>Findings</b>	<b>Suggested Corrective Action and Actual Corrective Action.</b>
Objective 3 and 6	No sufficient Fire-fighting equipments such as fire beaters to fight fire.	Sufficient Fire-fighting equipments such as fire extinguisher, fire beaters must be available and easily accessible.
Objective 16	No specific areas designated for the temporary management of various waste streams, i.e. general refuse, construction waste (wood and metal scrap) and contaminated waste.	A designated and banded area must be designated for management of all waste stream on site.
Objective 16	Hazardous chemical and fuels stored are not within the banded area and sealed surface.	All hazardous chemical substance must be stored within the bund and on sealed surface area.
Objective 16	Excavator packer is placed	Construction machinery must be



	on the bare ground without measure in place to prevent soil contamination.	stored within a bunded area and on a sealed surface. Bund or sealed surface must be provided for the placement of such
Observe 16.	No copy of the permit for landfill facility used to disposed general and of permit for treatment water works used to sewage waste.	Disposal of waste must be in accordance with relevant legislative requirements, including the use of licensed contractors and licensed waste disposal sites. A copy of license must be available of site.
Objective 17	Construction vehicle was found parked on site without drip tray.	Drip trays must be placed under stationery machineries in sensitive areas. A toolbox talk must be conducted to all Operators/Drivers

## 5. CONSTRUCTION PROGRESS

This section outlines construction activities recorded during the reporting period as well as planned construction activities.

### 5.1. Construction Progress to Date

- During the inspection the following activities were in progress:
  1. Bulk earth work and excavation and stockpiling of different soil for preparation of 132kV yard terrace.
  2. Construction of bund area for servicing or repair of construction vehicle, Hazardous Chemical Storage and septic tank.
  3. Crushing of stones.





## 6. NON-COMPLIANCES, INCIDENTS AND DEVIATIONS

This section provides a description of NCR's and Incidents noted during the reporting period, summary of open NCR's and Incident as well as the distribution of the non-compliances and observations raised during construction.

### 6.1. Description of Incidents, Non-compliances and Deviations

There was no (0) Environmental NCR's issued or opened during the reporting period. However there are eight (8) deviations raised which two (2) are closed and six (6) are still open. This was raised during inspections conducted by ECO for the reporting month. Open deviations should be addressed to avoid Non-Compliance Reports.

### 6.2. Distribution of Non- compliances, incidents and Deviations

Table 2: Distribution of Environmental NCR's, Incidents and Deviations

Status	NCR's		Incidents		Deviations	
	Month	Project to Date (PTD)	Month	Project To date (PTD)	Months	Project to date (PTD)
Open	0	0	0	0	6	8
Closed	0	0	0	0	2	6
In Progress	0	0	0	0	0	0
Total	0	0	0	0	8	8

## 7. OBSERVATIONS

This section highlights observations noted during the reporting period.



## **7.1. Construction Camp Site**

The following were observed as issues of concern during the reporting:

1. No designated waste bins for storing oil rags, oil rags are found all over the laydown area.
2. Minor oil spills at the refuelling area.
3. Development foot print are not demarcated.
4. Stationary truck parked without drip tray.

## **7.2. Flora**

During the inspection it was observed that not all endangered/ protected/ threatened species that are on the development foot print are identified and marked during the walk down for search and rescue of threatened/ protected species. Most of those species are Protected according to Schedule 2 of the Northern Cape Nature Conservation Act, 2009 (Act No. 9 of 2009). Permits will be required from Northern Cape Department of Environment and nature Conservation (NC DENC) to remove or translocate protected plant species.

It is recommended that all areas of development must be clearly marked on-site to eliminate the potential for unnecessary clearing in order to minimise impacts on flora, fauna and ecological processes.

## **7.3. Livestock, game and other fauna**

No incident of fauna reported or noticed during the reporting month. Employees, visitors and/or subcontractors should be made well aware of the consequences of any damage to private property and/or loss of livestock, game and/or other fauna.

Two snake Berg adder (*Burke's adder*) and Karoo Whip snake were sighted on site and they were all removed to the nearest safe environment.



## 7.4. Fencing

It was noted during the inspection that there is a security controlled access at the main entrance, fence, and the camp is secured. However old boundary fence is available on site though a new and permanent security will be constructed.

## 7.5. Material Handling, Use and Storage

It was observed that all material used for construction are neatly stacked and stored at the laydown area.



Photo 1: Good practice of stacking and storage of material.

## 7.6. Hazardous Substances Storage

During the inspection it was observed that no dedicated store controller, controlled access and necessary signage at the temporary hazardous store.



## **7.7. Workshop Equipment Maintenance and Storage**

The construction of bund for servicing or repair of construction vehicle area is in progress.

## **7.8. Waste Management**

No designated area for temporary storage and management of waste on site. Integrated waste management approach is encouraged on site. A plan must be in place to reuse if possible, recycle and reduce waste on site.

Wastes generated on site are mostly general construction waste, hazardous waste (i.e. fuel, chemicals), and liquid waste (including grey water and sewage). In order to manage the wastes effectively, guidelines for the assessment, classification, and management of wastes, along with construction principles for minimising construction wastes must be implemented.

General waste is taken to a licensed Landfill site at Laingsburg registered under Laingsburg Municipality for disposal. However no copy of permit on site for the landfill site used. 20 refuse bags disposed for the reporting month.

## **7.9. Toilets / Ablutions**

Boland toilet hired is the service provider for ablution facilities (portable toilets and septic tank) and they service the toilets at least once a week at site camp. No issues noted or observed regarding servicing of portable chemical toilet.

Mobile chemical toilet and septic tank on site are serviced by Boland Toilet Services. The sewage waste is taken to a licensed Waste Water Treatment Plant (Witzenberg) in Ceres registered under Witzenberg Municipality. However, there is no copy of license on site. 3280 litres of sewage disposed or the reporting month.

Mobile chemical toilet are serviced at least once a week at site camp. No issues noted or observed regarding servicing of portable chemical toilet.

## **7.10. Water Management**

The project is currently collecting construction water from a borehole at Standvastigheid 210/RE, Water use registration and Authorisation in terms of the National Water Act, 1998



(Act No 36. Of 1998): for taking of water from ground water is in place, the purpose for the used is defined as taking of underground water for the construction of **wing** farm which is the different activity to that of the expansion of Komsberg MTS.

However the registration certificate not yet obtained. The limit for maximum volume per annum/capacity is 40 000m<sup>3</sup>. It is recommended that a water meter must be installed to get the accurate quantity used in order to comply with the WUL.

### **7.11. Erosion and Sediment Control**

No issue noted or signs of erosion noted. However all areas susceptible to erosion must be protected by installing necessary temporary and/or permanent drainage works as soon as possible and by taking suitable measures to prevent surface water concentration into nearby roadways.

### **7.12. Access Roads, Access Control and Gate Installation**

There were no issues recorded regarding access roads, access control and gates. However dust suppression must be applied and regularly monitored on all exposed areas, stockpiles and gravel roads as required to minimise/control airborne dust. These could include the use of water or other appropriate dust suppressants, as determined by the local site conditions and in consultation with the ECO.

It is recommended that rescheduled or the frequency of application of dust control/suppression increased during periods of high winds if excessive visible dust is blowing toward where other employees are working especially on the access roads.

### **7.13. Dust and other air emission**

During inspection it was observed that more dust is generated during crushing of stones at the crusher **plan**. It is recommended that dust-generating activities or earthworks as well as crushing of stones may need to be rescheduled or the frequency of application of dust control/suppressant increased during periods of high winds if excessive visible dust is blowing toward where other employees are working or to the nearby residences outside the site in order to achieve the objective of the EMPr.



#### **7.14. Labour and Social Issues and their Control**

Local employment was created for a number of unskilled workers at Matjiesfontein (which fall under ward 2 of Laingsburg Municipality under Central Karoo District Municipality) which is approximately 19km from the construction/development site. Although limited, employment opportunities could be created during the construction phase, specifically for semi-skilled and unskilled workers. Use should be made of local labour as far as possible.

#### **7.15. Accidental leaks and Spillages**

The contractor is strongly advised to make every effort to prevent spills and leakages on site. Regular maintenance of construction vehicle is essential to prevent unnecessary oil spills. During the reporting period **they** were three (3) **minor** spillages observed and one (1) chemical spills. All oil spills minor or major must be cleaned immediately and reported to the ECO. All spill were cleaned up and contaminated soil were temporarily stored into hazardous waste bins.

#### **7.16. Drainage Lines and Periodic Stream**

During the inspection no issues observed regarding impact of activities on the drainage line or streams. However a careful planning must be done during planning of temporary access road for construction purpose not to impede with the flow of water.

#### **7.17. Soil Degradation and Erosion**

No issue observed regarding soil degradation and erosion noted during the reporting month. However, Excavated topsoil stockpiled must be covered (during windy conditions) or vegetated until replaced during rehabilitation. The area identified as disturbed area must be restricted for construction activity.

Erosion control measures such as (reducing run-off on slopes (sand bags, logs), silt fences, storm water catch-pits, shade nets, or temporary mulching over stripped area as required) must be implemented to prevent erosion.



### **7.18. Heritage Resource**

No archaeological sites/materials were observed during the reporting month within the development footprint. Although it is unlikely that archaeological remains will be found in situ especially during excavation, there is always a possibility that human remains and/or other archaeological and historical material may be uncovered during the development.

Employees have been made aware of the possibility of discovering heritage sites, if concentrations of historical and pre-colonial archaeological heritage material and/or human remains (including graves and burials) are potentially uncovered during construction, all work in the immediate area must be cease immediately and be reported to the ECO so that it will be reported to SAHRA.

### **7.19. Visual Impacts**

No Visual impacts observed during the reporting month. Movement of construction workers and vehicles to the immediate construction site and existing access roads/ tracks must be restricted and restrict construction activities to daylight hours whenever possible in order to reduce lighting impacts.



## **7.20. Noise Control**

No excessive noise were noted during the reporting month. However, on-site construction activities should be limited to daylight hours as far as possible and construction noise to be managed in accordance with the Noise Control Regulations and SANS 10103.

It is recommended that all construction equipment, including vehicles, must be properly and appropriately maintained in order to minimise noise generation, e.g. silencers must be in good working in order to achieve the EMPr objectives.

## **7.21. Traffic Management**

The construction phase of the project is most significant in terms of generating traffic impacts; resulting from the transport of equipment, materials and construction crews to the site and the return of the vehicles after delivery of materials.

The construction site is created with a single track road to ensure safe entry and exit and to minimize the footprint as well as the least impacts.

## **7.22. Public/Land Owner's Complaint**

No complaint received or recorded during the reporting month. A complaints register must be maintained, in which any complaints from the community will be logged. Complaints must be investigated and, if appropriate, acted upon.

## **7.23. Rehabilitation**

All area requiring rehabilitation must be rehabilitated as soon as possible or as required, other than those the rest of the area will be rehabilitation during the completion of the project. Alien species that might have been introduced during construction must be monitored, controlled and removed during the construction phase.

Unnecessary removal of vegetation must be avoided as it adds stability to soil and all the disturbed area must be identified to restrict construction in such area and must be demarcated as a no go area for recovery.

No area require rehabilitation to date. However, ongoing rehabilitation must be done as and when required.





## 8. Conclusion

All findings raised during inspection must be address as soon as possible, and action plan of how the issue will be addressed by the contractor must be sent for acceptance and the proof of closure to be sent later. All finding must be taken seriously and closed out prior becoming major non-conformance and non-compliance. It must also be noted that where audit findings are identified on the EMPr, it shows that there are gaps that needs to be addressed urgently.

Ensure that the site activities remain within the development footprint and do not impact negatively on the biophysical environment, it must be noted that all non-compliance findings be recorded and closed out in the form of action plan.

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APPENDIX A: PHOTOGRAPHIC INSPECTIONS EVIDENCE



Photo: Berg adder (*Bitis atropos*) relocated. Photo: Karoo Whip snake.



Photo: Bund area for repair of servicing of vehicle.



Photo: Stationary truck parked without drip tray.



Photo: Excavator packer is placed on the bare ground without effort/measure in place to prevent soil contamination



Photo: Constructed bund for underground septic tank.



Photo: Hazardous store that does not meet the minimum requirements.



Photo: Bulk earthworks at Section B of 132kV terrace.



Photo: Minor oil spill at Section B of 132kV terrace.



Photo: Identified endangered/ protected and threatened plant species that need to be rescued.