

Title: **Testing and Issuing of Electrical Certificate of Compliance (CoC) for all ERI TGS Sites for a period of 5 years on an as and when required basis.**

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## **1. INTRODUCTION**

The Eskom Rotek Industries SOC LTD (ERI) is a fully owned subsidiary of the Eskom Holdings SOC LTD (Eskom). ERI executes work at all Eskom Holdings facilities under different contracts. Most of its work is executed within the Eskom Generation (Gx) Facilities. This implies that ERI is present and executes work at all Eskom Power Stations across South Africa.

Effective execution of all work carried out by ERI relies on following all the relevant statutory and client requirements.

The Turbo Gen Service (TGS) Business Unit of ERI is responsible for executing maintenance and outage work within the Eskom Generation facilities. As per the requirements, all electrical installation connected to the Eskom Gx facilities needs to have valid Electrical Certificate of Compliance (CoC).

Therefore, ERI TGS is required to ensure that there are valid CoCs for all its facilities and these CoCs are updated when the installation is modified in accordance with the relevant SANS requirements.

This scope makes provision for the development of a contract for the Testing and Issuing of Electrical Certificate of Compliance (CoC) for all ERI TGS Sites for a period of 5 years on an as and when required basis.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

This document covers the scope of work for the Testing and Issuing of Electrical Certificate of Compliance (CoC) for all ERI TGS Sites for a period of 5 years on an as and when required basis. The scope also covers the minimum requirements to be met by the Service Provider, which will ensure that the said installation is inspected and certified in accordance with the highest standard and effectiveness required by the Client (ERI) and in line with any relevant SANS standards.

#### **2.1.1 Purpose**

The aim of this document is to define the scope of work for the Testing and Issuing of Electrical Certificate of Compliance (CoC) for all ERI TGS Sites.

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### **2.1.2 Applicability**

This document shall apply throughout Eskom Rotek Industries SOC LTD TGS facilities.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

### **2.2.1 Normative**

Parties using this document shall apply the most recent edition of the standards for best practices and in line with Eskom specifications that are indicated in this document.

- [1] SANS 1973-1 - Low-voltage switchgear and control gear ASSEMBLIES Part 1: Type-tested ASSEMBLIES with stated deviations and a rated short-circuit withstand strength above 10 kA.
- [2] SANS 1973-3 - Low-voltage switchgear and control gear ASSEMBLIES Part 3: Safety of ASSEMBLIES with a rated prospective short-circuit current of up to and including 10 kA.
- [3] SANS 10142-1 - The wiring of premises Part 1: Low-voltage installations
- [4] SANS 10142-2 - The wiring of premises Part 2: Medium-voltage installations above 1 kV a.c. not exceeding 22kV A.C. and up to and including 3 MVA installed capacity.
- [5] SANS 12100 – Safety of Machinery
- [6] SANS 347:2012 – Categorization and conformity assessment criteria for all pressure equipment.

### **2.2.2 Informative**

Parties using this document shall apply and have knowledge of the most recent edition of the standards as listed below.

- [7] ISO 9001 - Quality Management Systems.
- [8] ISO 14001 – Effective Environmental Management System.

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- [9] OHSAS 18001 – Occupational Health and Safety Standards.
- [10] OHS Act 85 of 1993, *specifically*: General Machinery Regulation (GMR), Electrical Installation Regulations (EIR), Electrical Machinery Regulations (EMR) and Driven Machinery Regulations (DMR).

## 2.3 DEFINITIONS

Definition	Description
ERI	Eskom Rotek Industries SOC LTD, the Client
TGS	Turbo Gen Service, an ERI Business Unit
Plant Maintenance	A TGS Department responsible for maintenance effectiveness and control.

### 2.3.1 Disclosure Classification

**Controlled disclosure:** controlled disclosure to external parties (either enforced by law, or discretionary).

## 2.4 ABBREVIATIONS

The following are abbreviations and their descriptions are specific to this document.

Abbreviation	Description
RPM	Revolutions Per Minute (speed)
PM	Preventative Maintenance
CM	Corrective Maintenance
PdM	Predictive Maintenance
CMMS	Computerized Maintenance Management System
CoC	Certificate of Compliance

## 2.5 ROLES AND RESPONSIBILITIES

Roles	Responsibilities
Scope Compiler	Compilation of the scope of work
Functional Responsibility	Reviewing and acceptance of the scope
Support Personnel	End-user support and acceptance of the scope
Approval Authority	Approving the scope for tendering purposes
Service Provider	Execution of the approved scope

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## **2.6 PROCESS FOR MONITORING**

<b>Requirements</b>	<b>Monitoring Process</b>
Computerised Management Process (SAP)	Monitoring of the execution progress

## **2.7 RELATED/SUPPORTING DOCUMENTS**

- TBC

## **3. SCOPE OF WORK**

### **3.1 BACKGROUND**

ERI TGS operates at all Eskom Gx facilities. TGS has facilities that are connected to the permanent electrical installation within the Eskom Gx facility. As per the SANS requirement, every time an installation have major changes, a new CoC is to be issued. The overall scope of work for ERI TGS involves movement of mobile facilities such as containers across the different power stations. Therefore, every time a container is moved from one position or site to the next, a new CoC is to be issued. This scope, therefore, covers the service for the testing and issuing of new CoC as and when required.

### **3.2 SITE INFORMATION**

The scope entails works to be executed at different Eskom Sites/Power Stations sites; i.e.; Medupi, Matimba (in Lephalale, Limpopo), Kusile, Kendal, Matla, Kriel, Duvha, Hendrina, Arnot (near eMalahleni, Mpumalanga), Lethabo, Grootvlei (Free State), Camden, Tutuka, Majuba (Mpumalanga), Drakensburg, Ingula (KwaZulu-Natal), Koeberg, West Coast Peaking Stations (Western Cape), and all other Sites where Eskom Holdings operates where ERI TGS may be requested to execute any work.

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### 3.3 PLANT DESCRIPTION

The plant description of the covered by this scope is mainly the mobile containers that house either offices, maintenance machines or testing equipment. In some instances, also portable distribution boards.

### 3.4 DETAILS OF THE WORKS

The specific tasks to be conducted is to test and issue a CoC for the facility as per the request.

Prior to commencement of the work, the Service provider must ensure that the facility is safe, through conducting appropriate pre-checks tests.

### 3.5 DELIVERABLES

The service provider shall ensure that the reports and documentation pertaining the service are submitted to the Client's Plant Maintenance Manager and the original copy of the CoC left with the owner of the facility. Below is a table that entails the minimum details to be contained in the report. The agreed template of any other report or handover document will be provided to the Service Provider upon finalization of the contract and prior to the initial rendering of the services.

**Table 1: Report Minimum Required Information**

<b>System</b>	<b>Report Content</b>
Housekeeping	The initial housekeeping prior to the execution of the task and the resulting housekeeping condition after the execution of the task
Container / Distribution Board (DB) condition	The condition of the DB prior to starting the task and the condition of the DB after the task has been completed
Electrical System	The condition of the electrical system of the facility
Inspections Report	In the event of a failed CoC, a comprehensive report and recommendation need to be issued to the Client prior to leaving site. If recommendation require spares, the list of spares should be listed on the report.

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Parts and Consumables	Details of all parts and consumables in the event of remedial work, approved by the client, required to get the facility to pass the CoC
Duration	The duration of the task from start to finish
Facility/DB Specification	The details of the facility/DB worked on which shall include the name, serial number, asset number, design specs and data of the installation, if available.
Recommendations	Any recommendations outside of the contractual agreement of the execution contract of this scope of work.
Service Report	Detailed service report of all work done and list off all replacement parts used, if remedial work was required and approved by the Client.

### **3.6 ASSESSMENT CRITERIA**

3.6.1 Upon completion of the task, the Service Provider shall ensure that a Client's Plant Maintenance representation, to be identified as and when required, inspects and signs of the work executed prior to the acceptance of the work as complete in accordance with the contract by the Client's Plant Maintenance Manager or representative.

3.6.2 The Service Provider shall ensure that records are kept for the duration of the contract.

### **3.7 WARRANTY**

The work performed is warranted to be free from defects in material and workmanship from date of completion to the following periods. The warranty shall cover:

3.7.1 New electrical parts as stipulated by OEM.

3.7.2 Workmanship for 6 Months after acceptance of work by the Client

3.7.3 The product must be used in accordance with manufacturer's recommendations and must not have been subject to abuse, lack of maintenance, misuse, negligence, or unauthorized repairs or alterations. Should any defect in material or workmanship occur during the above time period in any product, as determined by supplier inspection of the product, the Service Provider, agrees, at its discretion either to replace (not including installation) or repair the part or product free of charge.

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### **3.8 ELIGIBILITY EVALUATION CRITERIA**

The Service Provider intending to tender for this work shall ensure they are and/or employ qualified and competent personnel in the field of Electrical. Notwithstanding other requirements that may arise during the tender process, the following are the minimum requirements.

3.8.1 Qualified Trade Tested Electrician

3.8.2 Proof of Wireman's License

3.8.3 Proof of Registration with the Department of Labour (DoL) as an Installation Electrician.

3.8.4 Be mobile and readily available for urgent work at any site.

### **3.9 GENERAL CONSTRAINTS**

The following are the general constraints that are to be considered:

3.9.1 Working in an operational environment where machines and equipment are being handled.

3.9.2 Accuracy of existing information may be outdated and need to be verified on site prior to proceeding with any work.

### **3.10 TERMS AND CONDITIONS**

The successful Service Provider will be expected to adhere to the following minimum conditions:

- a. Adherence and compliance to the health and standards set out by the Client.
- b. Provide adequate PPE to its employees.
- c. Provide its own working fully functional tools.
- d. Fully sign and complete the PM Orders.
- e. Issue the service report for the work done and fully signed by the responsible Technician or Supervisor.
- f. Respond to the call out within 4 hours after receiving a call out.
- g. Hand over the replacement (parts removed) parts to the Client.

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#### 4. AUTHORISATION

Name & Surname	Designation
Singobile Nene	Plant Maintenance Manager
Nhlakanipho Blose	Maintenance Service Manager

#### 5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2024	0	S Nene	<b>Testing and Issuing of Electrical Certificate of Compliance (CoC) for all ERI TGS Sites for a period of 5 years on an as and when required basis</b>

#### 6. DEVELOPMENT TEAM

The following people were involved in the development and content of this document:

- Plant Maintenance Team

#### 7. ACKNOWLEDGEMENTS

- Plant Maintenance Team



02 June 2024

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