	<b>Specification</b>	<b>Kusile Power Station</b>
---	----------------------	-----------------------------

Title: **Provision of Specialized Turbine and Generator Inspectors for Outage Improvement**

Document Identifier:

Alternative Reference Number:

Area of Applicability: **Kusile Power Station**


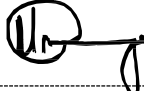


Functional Area: **Outage Management Department**

Revision: **2**

Total Pages: **10**

Next Review Date: **N/A**

Disclosure Classification: **Controlled Disclosure**

Compiled by	Supported by	Functional Responsibility	Authorized by
 <b>N Khumalo</b> Senior Advisor Outage Coordinator	 <b>Mduduzi Ngwenya</b> Manager Outage Planning & Scheduling	 <b>N Hlapisi</b> Outage Manager Execution	 <b>S Mahaye</b> Middle Manager Outages
Date: 09/10/2025	Date: 09/10/2025	Date: 16/10/2025	Date: 09/01/2026

**Content**

Page

1. Introduction .....	3
2. Supporting Clauses .....	3
2.1 Scope .....	3
2.1.1 Purpose .....	3
2.1.2 Applicability .....	3
2.1.3 Effective date .....	3
2.2 Normative/Informative References .....	3
2.2.1 Informative .....	3
2.3 Definitions .....	4
2.4 Abbreviations .....	4
2.5 Roles and Responsibilities .....	5
2.5.1 The Employer .....	5
2.5.2 The Contractor .....	6
2.5.3 Management and Reporting .....	7
2.5.4 Project Implementation .....	8
2.5.5 Manpower Requirements .....	8
2.6 Process for Monitoring .....	8
2.7 Related/Supporting Documents .....	8
3. Scope of Work Requirements .....	8
Exclusions .....	9
4. Acceptance .....	9
5. Revisions .....	9
6. Development Team .....	9
7. Acknowledgements .....	10
Not Applicable .....	10

**Figures**

Figure 1: Interim Outage Philosophy (1st 6 Year Cycle) .....	
--	--

**Tables**

Table 1: Kusile Outage Philosophy .....	
---	--

**CONTROLLED DISCLOSURE**

## **1. Introduction**

Kusile Power Station Management has taken a decision to add Specialised Turbine and Generator Inspectors to support Eskom Rotek Industries resources during disassembly, inspection, refurbishment, reassembly and commissioning of Turbine Centreline and Auxiliaries for upcoming unit 1

This document describes the detail of the applicable plant areas, scope of work, standards, quality, requirements, specifications, terms & conditions as well as the criteria to qualify for the tender.

## **2. Supporting Clauses**

### **2.1 Scope**

This document gives a detailed scope of work for Turbine and Generator Inspectors contract. The scope of work is to enable the Contractor to compile and submit a quotation of required services. The scope is applicable to unit 1 MGO

#### **2.1.1 Purpose**

The purpose of this document is to ensure that the proposed work is executed in a planned and structured manner and that all quality requirements during disassembly, inspection, refurbishment and reassembly are met, this includes meeting outage due dates, spares identification, inputs into planning, execution of scope, close out, routine maintenance monitoring for input into the next cycle scope of work. To ensure plant availability, reliability and performance improvements on Turbine Centreline, , Generators and associated auxiliaries of Turbo Generator plant and components machining, refurbishment, rehabilitation, repairs and manufacturing of spares.

#### **2.1.2 Applicability**

This document is applicable to Kusile Unit 1 MGO Turbine, Generator and Auxiliaries Scope

#### **2.1.3 Effective date**

This document will be effective from the date of authorisation.

## **2.2 Normative/Informative References**

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

- [1] 240-106963417 Kusile Environmental Management requirements for Contract and Supplier

### **2.2.1 Informative**

- [2] ISO 14001: 2004 Environmental Management System

**CONTROLLED DISCLOSURE**

[1] Act No 14 of 2009: The National Environmental Act, 1989

[2] Act No 102 of 1980: National Key Points Act, 1980

Act No 85 of 1993: Occupational Health and Safety Act & Regulations, 1993

### 2.3 Definitions

Definition	Explanation
Contractor	Service provider contracted to provide a specific service to Eskom, Kusile Power Station.
Employee	Person employed by Eskom, Kusile Power Station or the Contractor
Employer	Eskom, or Eskom Kusile Power Station or representative
Outages	Outage is a planned period where the machine is unable to perform its functions. This document covers planned Outages
Site	All plant and equipment installed in the boundary fences of Kusile Power Station
Maintenance Philosophy	Principle structured approach that governs the methodology through which the plant is maintained

### 2.4 Abbreviations

Abbreviation	Description
OEM	Original Equipment Manufacturer
AP	Appointed Person
BU	Business Unit
BO	Black Owned
COID	Compensation for Occupational injuries and Diseases
SOW	Scope of Work
SOW	Scope of Work
BYO	Black Youth Owned
QCP	Quality Control Plan
PPT	Pant performance and Testing
KPI	Key Performance Indicator
HV	High Voltage (> 1000V)
HP	High Pressure
PCM	Process Control Manual
NDT	Non-Destructive Testing
PCLF	Planned Capability Loss Factor
UCF	Unit Capability Factor
UCLF	Unplanned Capability Loss Factor
QA	Quality Assurance
QC	Quality Control
IP	

**CONTROLLED DISCLOSURE**

LP	
HP	
MGO	

**2.5 Roles and Responsibilities**

Table below outlines the line of responsibility, accountability, and relevant stakeholders to be consulted and informed.

<b>Responsible</b>	<b>Accountable</b>	<b>Consult</b>	<b>Inform</b>
Contract Supervisor	Service Manager	<ul style="list-style-type: none"> <li>- Commissioning Manager</li> <li>- Aux System Engineer</li> <li>- Aux Engineering Manager</li> <li>- Turbine System Engineer</li> <li>- Turbine Engineering Manager</li> </ul>	Risk and Assurance, Human Resources; Maintenance; Procurement, Operating and Engineering

Assurance that all action listed in this procedure are undertaken (follow up, advice, consultation)	Implementation of this procedure, random reviews and audits for adherence, provide assurance that any deviations will be corrected.	Provide support, advice and communication with outside stakeholders where needed.	Planning and advice
---	---	---	---------------------

**2.5.1 The Employer**

- a) Inform and issue the Contractor with the updated outage plan
- b) Ensure the SOW is issued to the Contractor in time to allow planning for the Outage
- c) Performance is measured by the Employer against those areas which contribute to the Employer's business and the Contractor shall be compensated accordingly as per the agreed contract clauses. (E.g., Reliability, Availability and Safety).
- d) Areas of measurement include the Employer's key business indicators and will be redefined from time to time.
- e) Employer shall provide training for PSR, ORHVS, FFFR, Outage PCM & Commissioning awareness training and any other training as deemed necessary by the Employer in line with the scope requirements.
- f) The Employer and Contractor in this SOW is committed towards the following.
  - i. Retention of critical skills
  - ii. Continuous cost reduction
  - iii. Health & Environment Safety
  - iv. Transfer of operational experience and skills

**CONTROLLED DISCLOSURE**

## **2.5.2 The Contractor**

- a) Comply with the Employer's Environmental, Health and Safety standards, policies and procedures
- b) The Contractor shall compile improvement programmes to enhance plant performance and achieve cost reductions and the Employer will approve such programmes.
- c) The Contractor shall be responsible for all the unit in terms of Outage Planning, execution and close out of the as per the Employer's instructions.
- d) The following complementary services to improve Plant and labour performance can be defined as follows;
  - i. Project management
  - ii. Value engineering
  - iii. Procedure and documentation writing
  - iv. Compile and improve task list's
- e) The contractor is to ensure that any service rendered does not interfere with the Employer's scheduled work and should align himself with the Employer's work control management process.
- f) Should the Employer become aware of any changes to the activity schedule (programme of notifications), the Employer may issue the Contractor with a revised programme.
- g) The contract entered with the Contractor is non-exclusive and work against this contract can only be performed upon receipt of a task order.
- h) The Contractor shall take cognisance of the fact that the contract start date can deviate.
- i) The Contractor to provide resources required to execute this scope and any changes to the crew must be negotiated and agreed upon with the Employer.
- j) This contract is for outage SOW and any other breakdowns that the Contractor will be required to perform within the scope boundaries of this contract.
- k) The Contractor to provide equipment and tools required for the works
- l) The Contractor shall participate in improvement programs as stipulated by the employer.
- m) Contractor vehicles to comply with Eskom Vehicle Standards and Procedures.
- n) During Outages it is expected that the contractor will provide on-site representation on a 24 hour basis, seven days a week if required. Shift times: 07h00 to 19h00, 19h00 to 07h00 or whichever times that will be agreed between two parties.
- o) All additional personnel and scope of work to be clarified with the Employer prior to work being done.
- p) Will be required to comply with the Employers process control manuals (PCM) that outlines the outage processes.

### **2.5.2.1 Re-commissioning**

- a. The Contractor shall provide resources required for recommissioning of the plant after the works is completed in preparation for unit return to service

**CONTROLLED DISCLOSURE**

### **2.5.3 Management and Reporting**

- a. The type of reports, level of detail and frequency of reporting will be mutually agreed by the Employer and the Contractor during the contract negotiation phase of this agreement. These may change from time to time on request by the Employer.
- b. The Contractor to be represented at all outage related meeting which may be daily, weekly or monthly.
- c. The Contractor to be represented at all Employer safety meetings.
- d. The Contractor to be represented at any ad-hoc meetings that may arise in order to address any outage planning, execution, finalisation or safety related matters.
- e. Liaison meetings shall be held with the Employer's Representative or his/her delegate on as and when required basis to discuss any technical details, or concerns.

#### **2.5.3.1 Contractor's Management, Meetings and Key People**

- a. Before work starts on site, an inaugural meeting is held with the Contractor and the Employer, to explain in detail all requirements of the Site Regulations.
- b. The Contractor is issued with a file of current Site Regulations on arrival. The file remains the property of the Employer, and the Contractor is responsible for its maintenance and updating to include new or revised regulations as issued by the Employer.
- c. The Contractor must ensure that all personnel operating mobile equipment and vehicles are authorised, this includes but not limited to.
  - i. Forklifts
  - ii. Mobile Cranes
  - iii. Cherry Pickers
  - iv. Any other mobile equipment
- d. The Contractor shall be responsible for the regular inspections and daily equipment checks of the mobile equipment and vehicles including record keeping while onsite.
- e. The Contractor must ensure that all personnel performing work on the plant are authorised, this includes but not limited to;
  - i. Confined space locations
  - ii. Working at heights
  - iii. Heat stress areas
  - iv. Scaffolding Compliance
  - v. Hazardous substances
  - v. Any other related training required

**CONTROLLED DISCLOSURE**

#### **2.5.4 Project Implementation**

- a. The Contractor shall supply an outage execution plan per outage including at least the following in Primavera or any other project plan acceptable to the Employer:
  - i. Site establishment
  - ii. Activities
  - iii. Manpower plan (Resource loaded)
  - iv. Organogram

Skills required and associated cost per skill (e.g. artisan, site manager, etc)

#### **2.5.5 Manpower Requirements**

- a. The number of personnel required to execute the works is to be proposed by the Contractor after his/her assessment of the scope of work and submitted to the Employer for approval.
- b. The successful Contractor shall utilise/provide skilled and suitably qualified staff with experience in the technical aspects of this SOW and supporting teams.
- c. All staff brought onto site in connection with this work scope should be able to fluently speak, read and write in English.
- d. Proof of qualification is to be supplied on request by the Employer for specific key resources.
- e. The Contractor ensures that all staff being brought onto Kusile site has a valid fitness certificate based on the specified plant man-job specification.
- f. Provide daily supervision of all related plant through trained and competent personnel to ensure that inspections & work activities are conducted daily during execution of the outage.

#### **2.6 Process for Monitoring**

Quality Control Plans will be used to measure service provider as well as other prescribed and applicable Outage Process Control Manuals

#### **2.7 Related/Supporting Documents**

- 240- 46243194 Procedure for Outage Management Plan for the Definition Phase of an Outage
- 240-46243165 Procedure for Outage Management Plan for Execution and Finalisation Phases of an Outage

#### **3. Scope of Work Requirements**

- Inspections to be carried out in accordance with check sheets and master quality plan which should be compiled from the Scope of Work (SOW) and approved by Engineering. The document must contain

**CONTROLLED DISCLOSURE**

all the Quality Control Plans (PQPs) of work that will be done on site and off site. Disassembly and assembly values to be recorded for all check sheets. Repair or replace all damaged/worn components out of specification or obtain a concession from engineering staff. All abnormalities to be recorded and reported with Technical Notifications (TNs).

- All work carried out will be in line with the applicable Eskom standards. Where nothing exists, good engineering practise will be followed. This includes but is not limited to the covering of all openings and the use of approved chemicals.
- All ERI TGS and Eskom Gx quality documents, procedures, check sheets and POP are property of Eskom and should not be copied or removed from site or used anywhere other than in Eskom for Eskom for ERI TGS.

#### **4. Exclusions**

- Unauthorised modifications

#### **5. Acceptance**

This document has been seen and accepted by:

<b>Name</b>	<b>Designation</b>
Siyabonga Mahaye	Middle Manager Outages
Ntsiki Hlapisi	Manager Outage Execution
Mdu Ngwenya	Manager Outage Planning & Scheduling

#### **6. Revisions**

<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>

#### **7. Development Team**

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

- Siyabonga Mahaye
- Mdu Ngwenya
- Ntsiki Hlapisi

**CONTROLLED DISCLOSURE**

## **8. Acknowledgements**

Not Applicable

**CONTROLLED DISCLOSURE**