

	Specification	Kusile Power Station
---	---------------	----------------------

Title: **Kusile Power Station Hiring, installation and operation of mobile elevated and suspended work platforms for Maintenance and Outages.**

Document Identifier: **240-156006006**

Alternative Reference Number: **N/A**

Area of Applicability: **Kusile Power Station**

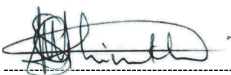
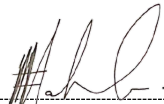
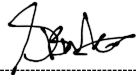
Functional Area: **Outage Management**

Revision: **2**

Total Pages: **12**

Next Review Date: **August 2031**

Disclosure Classification: **Controlled Disclosure**

Compiled by	Supported by	Functional Responsibility	Authorized by
			pp 
Sibangani Mthimkhulu Senior Engineer	France Mabula Project Coordinator	Ntsiki Hlapisi Outage Execution Manager	Fulufhelo Netshiongolwe Engineering Manager
Date: 29/08/2025	Date: 2025/09/02	Date: 2025/09/02	Date: 2025.09.04

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 Normative.....	3
2.2.2 Informative.....	4
2.3 Applicable Standards.....	4
2.4 Definitions	4
2.5 Abbreviations	5
2.6 Roles and Responsibilities	5
2.6.1 The Employer	5
2.6.2 The Contractor responsibility	6
2.6.3 Re-commissioning	7
2.6.4 Management and Reporting	7
2.6.5 Contractor's Management, Meetings and Key People	7
2.6.6 Communication and Correspondence.....	8
2.6.7 Quality and Documentation Control	8
2.6.8 Project Implementation	9
2.6.9 Manpower Requirements.....	9
2.7 Process for Monitoring.....	9
2.8 Related/Supporting Documents.....	9
3. Works information	10
3.1 Outage Philosophy	10
3.2 Applicable Plant Area	10
3.2.1 Applicable SOW	10
3.3 Exclusions	11
4. Acceptance	11
5. Revisions	11
6. Development Team.....	11
7. Acknowledgements.....	12

CONTROLLED DISCLOSURE

1. Introduction

Kusile Power Station Management has taken a decision to outsource Hiring, installation and operation of mobile elevated and suspended work platforms for Maintenance and Outages as and when required to a suitably qualified, experienced and well-established Contractor.

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

2.1.1 Purpose

The purpose of this document is to define the specified Hiring, installation and operation of mobile elevated and suspended work platforms for Maintenance and Outages scope of work activity requirements for Kusile Power Station.

The station is expected to perform at 92% UCF, 6% PCLF, 2% UCLF, and the specified Hiring, installation and operation of mobile elevated and suspended work platforms during outages activities and management strategy efforts must support this requirement.

It is therefore imperative that the successful and suitably qualified Contractor aligns his/her organisation fully to these specified scope activities and processes laid down in this document.

2.1.2 Applicability

This document shall apply throughout Eskom Kusile Power Station.

2.1.3 Effective date

Document is effective upon authorization.

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

- [1] ISO 9001 Quality Management Systems
- [2] PER 41256: 2017 OHS ACT Occupational Health and Safety Act, 85 of 1993
- [3] SANS 347 Categorization and conformity assessment criteria for all pressure equipment
- [4] 39-71 Quality control plan and contract quality control plan approval standard
- [5] OSHAS 18001: 2007 Occupational Health and Safety Management
- [6] 240-81951984 Kusile Outage Philosophy

CONTROLLED DISCLOSURE

- [7] 240-134567773 Kusile Power Station Integrated Risk Management Work Instruction
- [8] NMP47-7 Rev 0 Application of KKS Plant Coding
- [9] 240-72273656 Power generation asset criticality classification standard

2.2.2 Informative

- [1] 240 -111098236 Kusile Power Station Issue Management Work Instruction

2.3 Applicable Standards

The following additional documents are mentioned and form an integral part of this scope of work. Copies of the relevant *Employer* performance standards can be made available on request.

- a) SANS 1700: Fasteners
- b) SANS 10295, Parts 1 & 2: Inspection, test and examination of lifting platforms
- c) SANS 10375: Inspection, testing and examination of overhead cranes including
 - a. gantries, electric wire rope hoists & chain hoists
- d) SANS 18893: Mobile elevated work platform safety principles, inspection, maintenance and operation
- e) SANS 10148, Code of Practice: The installation and operation of cable cranes and aerial ropeways
- f) SANS 2972: Lifting tackle inspection
- g) SANS 500: Inspection, testing and examination of hand -operated chain blocks and lever hoists in use
- h) SANS 71: Inspection, testing and examination of vehicle hoists in use

2.4 Definitions

- 1) **Contractor:** Service provider contracted for supplying specific service to Eskom, Kusile Power Station.
- 2) **Employer:** Eskom, Kusile Power Station
- 3) **Employer Representative:** Any person appointed in writing by Employer as the delegated Employer representative in terms of the provisions.
- 4) **Plant:** Any structure, machinery, apparatus or equipment, which does not fall within the scope of the operating regulations for high voltage systems, and excludes, mobile, portable lifting equipment, domestic circuits' appliances and tools.
- 5) **T-X months** where "X" is the number of months prior to outage start and T is the outage start date
- 6) **Service Manager:** The Employer's representative in regard of the contract agreement.
- 7) **Contract Manager:** The Contractor's representative in regard of the contract agreement.

CONTROLLED DISCLOSURE

8) **Lifting machine:** A power- driven machine that is designed and constructed for the purpose of raising or lowering a load or moving it in suspension, but does not include an elevator, escalator or hand- powered lifting device.

2.5 Abbreviations

Abbreviation	Explanation
IWH	Institute for Working at Heights
PCLF	Planned Capability Loss Factor
SANS	South African National Standards
SD&L	Skills Development and Localisation
SETA	Skills, Education and Training Authority
SHERQ	Safety, Health, Risk and Quality
SWL	Safe Working Load
UCF	Unit Capability Factor
UCLF	Unplanned Capability Loss Factor
PCLF	Planned Capability Loss Factor
PCM	Process Control Manual
PER	Pressure Equipment Regulation
PM	Preventative Maintenance
QA	Quality assurance
QC	Quality Control
QCP	Quality Control Plan
SAP	System Applications Products
SE	System Engineer
SOW	Scope of Work
UCF	Unit Capability Factor
TSC	Term Service Contract

2.6 Roles and Responsibilities

Note: Further roles and responsibilities can be obtained from the NEC3 TSC

2.6.1 The Employer

The responsibilities of the Employer include the following:

- Inform and issue the *Contractor* with the updated outage plan.
- Ensure the SOW is issued to the *Contractor* in time to allow planning for the Outage.
- Ensure the *Contractor* personnel (core crew supervisors and technicians) are trained in Eskom Plant Safety regulations and are authorized to apply and accept permits to work

CONTROLLED DISCLOSURE

- d) The *Employer* shall inform the *Contractor* as soon as possible of any changes to the main activity schedule (programme of notifications) which might affect the activity plan of the contractor.
- e) Carrying out of gas tests, environmental tests and any other tests
- 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

2.6.2 The Contractor responsibility

- 1) The *Contractor* shall comply with all but not limited to *Employer's* SHEQ standards, policies and procedures as outlined in the SHE Spec
- 2) The *Contractor* shall be ISO 9001:2015 certified in accordance to Quality Management System
- 3) The *Contractor* shall ensure that all platforms, gratings, handrails and cat ladders removed by him/her are thereafter re-instated into original base as per structural standards.
- 4) 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*.
- 5) Provision of approved quality plans and method statements for the assigned scope of work
- 6) The *Contractor* shall ensure the integrity of plant labelling and that deficiency concerning KKS labelling is reported immediately. All KKS removed during repairs to be put back in correct position.
- 7) The *Contractor* must ensure that they have responsible persons (in terms of PSR) and authorised supervisors for any work performed on plant.
- 8) The *Contractor* to provide equipment and tools required for the works.
- 9) The *Contractor* shall produce a final report within 30 working days after the date of completion of the works or any date agreed on as per Task Order
- 10) *Contractor* vehicles to comply with Eskom Vehicle Standards and Procedures.
- 11) *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.
- 12) The *Contractor* will be required to submit the daily updated program during execution on specific times, failure to comply will result in *Employer* issuing NCR
- 13) Be in a position to make use of Primavera or Microsoft project software for project tracking and reporting purposes.
- 14) *Contractor* must be present in all meetings requested by the *Employer*.
- 15) The *Contractor* will be responsible for the following activities associated with the entire Kusile Power Station site namely:
 - a) Hiring, installation and operation of suspended platforms
- 16) Comply with Eskom's Outage Process Control Manual, copy will be made available on request
- 17) Provide recommendations to Outage Department in terms of requirements for preparation for execution of T-18-month scope, (with the intent to improve execution methodologies and planning of outage)

CONTROLLED DISCLOSURE

18) *Contractor* to provide their own Consumables, Tools and Materials

2.6.3 Re-commissioning

- a) N/A

2.6.4 Management and Reporting

- a) The Employer and the Contractor will mutually agree the type of reports, level of detail and frequency of reporting 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 outages related meetings that may be as and when required.
- c) The *Contractor* to be represented at all *Employer* safety meetings as and when required.
- d) The *Contractor* to be notified and representation will be required 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 between the *Contractor* and the *Employer's* Representative or his/her delegate on as and when required basis to discuss any technical details, or concerns.

2.6.5 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 users of suspended access equipment must be trained and certified in order to comply with the new Construction Regulations 2014.
- d) The *Contractor* must ensure that all users of suspended access equipment undergo SETA accredited training in terms of Driven Machinery Regulations 2015.
- e) The *Contractor* must ensure that all personnel operating, erecting and dismantling temporary suspended platforms are trained and certified.
- f) The *Contractor* must ensure the provision of qualified supervisor to ensure the safe use and perform the necessary inspections of temporary suspended platforms while erected on site.
- g) The *Contractor* shall be responsible for the regular inspections and daily equipment checks of the mobile equipment and vehicles including record keeping, this includes but not limited to.
 - a. No skyjack will be used before the equipment has been inspected, passed and *Contractor's* erection certificate issued to Eskom Risk Management for approval
 - b. The Test Certificates of the *Contractor's* equipment, no older than three (3) months will be produced

CONTROLLED DISCLOSURE

- c. The Safe Working Load (SWL) must be clearly displayed
 - d. The operators will make use of safety belts and harnesses at all times
 - e. Only trained, competent and appointed persons shall operate skyjacks
 - f. Proof of competency must be submitted
 - g. No person shall stand on the handrails of a skyjack
 - h. When a skyjack is not operational, it will be stopped, no lower than three (3) meters above ground level. The operator will make use of a ladder to get in and out of the skyjack. The ladder will be removed to safekeeping when stopped and not in use, thus preventing unauthorised entry
 - i. The power supply will be disconnected when not in use thus preventing unauthorised use
- h) The *Contractor* must ensure that all personnel performing work on the plant are authorised, this includes but not limited to.
- Confine space locations
 - Working at heights
 - Scaffolding

2.6.6 Communication and Correspondence

- a) All correspondence shall include but not limited to:
 - i. Kusile Power Station
 - ii. *Employer's* Contract number
 - iii. Contract description
 - iv. Correspondence subject matter
 - v. *Employer's* name and contact details
 - vi. *Contractor* contact details
 - vii. Date
- b) Where appropriate the correspondence must include the *Employer's* reference and is delivered as a single package or as per the agreed contract terms.
- c) All communications from the *Contractor* are numbered sequentially with a prefix as advised by the *Employer*. The *Employer* responds in like manner. The prefix and numbering system is decided upon at the Inaugural meeting.
- d) The *Contractor* shall communicate with the *Employer* by form of telephone and writing.

2.6.7 Quality and Documentation Control

- a) The *Contractor* will ensure that all equipment is calibrated, and proof thereof must be readily available.
- b) The *Contractor* will ensure that all Statutory Tests performed on equipment must be readily available.
- c) The *Contractor* will ensure that all equipment is individually identified.
- d) The *Contractor* will ensure that all personnel coming on site always produce their medicals, attend induction and show proof of such.
- e) All Quality References and Standards as stipulated in this document will be adhered to.
- f) The *Contractor* shall utilise the *Employer's* quality documentation management system and processes.

CONTROLLED DISCLOSURE

2.6.8 Project Implementation

- a) The *Contractor* shall supply an outage execution plan per outage including at least the below mentioned in Primavera P6 or any project software agreed with the *Employer* :
 - i. Site establishment
 - ii. Activities
 - iii. Manpower plan (Resource loaded)
 - iv. Organogram
 - v. Skills required and associated cost per skill (e.g. artisan, site manager, etc.)

2.6.9 Manpower Requirements

- a) The number of staff required to execute the works is to be decided by the *Contractor* after his/her assessment of the scope of work and submitted to the *Employer* for approval.
- b) All staff brought onto site in connection with this work scope should be able to fluently speak, understand and write in English.
- c) Proof of qualification is to be supplied on request by the *Employer*. The *Contractor* must ensure that all personnel operating mobile elevated work platforms and suspended powered platforms are trained in accordance with National Qualifications Framework (NQF), registered as a Professional Practitioner with Institute for Work at Heights Professional Body (IWH PB), as Temporary Suspended Platform Erection Technician or Temporary Suspended Platform Erection Supervisor.
- d) The *Contractor* shall employ in and about the execution of the works only such persons that are careful, competent and efficient in their trades and callings and the *Employer* shall be at liberty to object to and require the *Contractor* to remove from the works forthwith any person employed by the *Contractor* in or about the execution of the works who, in the opinion of the *Employer*, misconduct's himself or is incompetent or negligent in the proper performance of his/her duties and such person shall not be again employed for the works without the written permission of the *Employer*.
- e) Provide supervision of all related work activities plant through trained and competent personnel.
- f) Ensures proper behaviour of personnel under his/her supervision as per the Kusile culture.
- g) Ensures high morale of staff and competency.
- h) All staff brought onto site in connection with this work scope should have Working at Heights and Confined Spaces Training, proof of training shall be made to the *Employer* on request.

2.7 Process for Monitoring

Process will be agreed by both parties per Purchase Order and according to Outage Process Control Manuals and the specific outage SOW.

2.8 Related/Supporting Documents

None

CONTROLLED DISCLOSURE

3. Works information

3.1 Outage Philosophy

The scope of work is applicable to Hiring, installation and operation of suspended platforms for Maintenance and Outages at Kusile Power Station

The scope for all plant areas is also aligned to Kusile Power Station Outage Philosophy depicted as follows and is reviewed yearly.

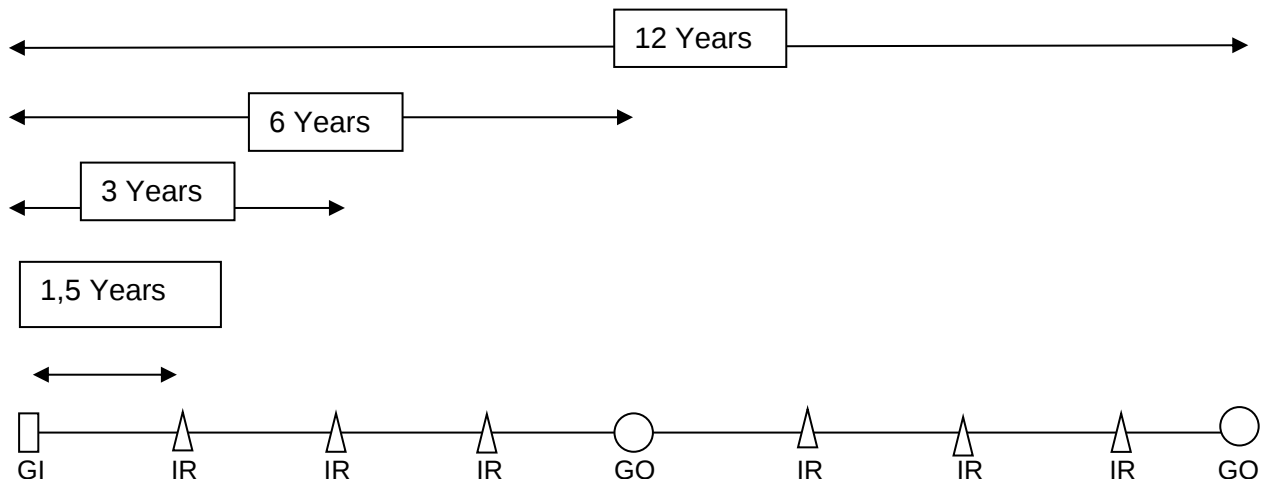


Figure 1: Kusile Outage Philosophy

3.2 Applicable Plant Area

3.2.1 Applicable SOW

- a) The Contractor is to supply, erect, dismantle, inspect, test, operate, maintain and replace the following.
 - 1) Suspended platforms
 - 2) Mobile elevating work platforms
 - 3) Steel cabling/ropes
 - 4) Motor drives and back-up drives
 - 5) Precise positioning of access equipment at any height
 - 6) Easy shifting of access platforms
 - 7) Safe and stable working access platforms
 - 8) Access equipment to display to safe working loads
 - 9) Respond to emergency situations and provide 24-hour shift cover
 - 10) All equipment brought on site must be in a serviceable and operating condition
 - 11) In the event that equipment is non-functional, spare equipment must be available on site at all times so that work can continue without any delays.
- b) Mobile Elevated Work Platforms and Suspended Platforms will be required on an as and when required basis to access areas at heights in Kusile Power Station that are not easily accessible to perform the following work and maintenance activities.

CONTROLLED DISCLOSURE

- 1) Access for maintenance, repairs and inspections of the boilers and smokestacks
- 2) Access equipment for tube replacement
- 3) Access for cleaning (e.g. high pressure washing, removal of boiler clinker, removal of coal hangers etc.)
- 4) Access for welding, repairs and inspections
- 5) Access for structural repairs
- 6) Access to FGD absorber
- 7) Access for burner nest inspections
- 8) Installation and removal of mobile elevated work platforms and suspended platforms across Kusile Power Station

3.3 Exclusions

- a) Scaffolding and Insulation
- b) Condition Monitoring
- c) Electrical
- d) C&I
- e) Lubrication

4. Acceptance

This document has been seen and accepted by:

Full Name and Surname	Designation
Karabo Khosana	Boiler System Engineer
Musa Ngwane	Chief Engineer
Selby Mahumani	Boiler System Engineer
France Mabula	Project Coordinator
Siyakudumisa Mtsweni	Boiler Engineering Manager
Siyabonga Mahaye	Middle Manager Outages
Fulufhelo Netshiongolwe	Engineering Manager (acting)

5. Revisions

Date	Rev.	Compiler	Remarks
August 2025	2	Sibangani Mthimkhulu	Document was revised as it was due for review.
July 2020	1	France Mabula	First issue

6. Development Team

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

- a) Sibangani Mthimkhulu
- b) France Mabula

CONTROLLED DISCLOSURE

c) Karabo Khosana

7. Acknowledgements

- a) Outage Management Team
- b) Boiler Engineering Team

CONTROLLED DISCLOSURE