	Specification	Kusile Power Station
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Title: **Kusile Power Station Steam
Sampling System C&I Maintenance
Scope of Work**

Document Identifier: **KUS-20250430**

Alternative Reference N/A
Number:

Area of Applicability: **Kusile Power station**

Functional Area: **C&I Maintenance
Department**

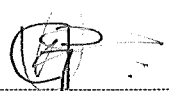
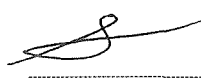
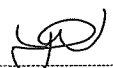

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Date: <u>27/06/2025</u>	Date: <u>27/06/2025</u>	Date: <u>29/06/2025</u>	Date: <u>2025-07-15</u>

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 Definitions	4
2.3.1 Availability: Period when a system is operating satisfactory when used under specified conditions.	4
2.3.2 Contractor: Service provider contracted to provide a specific service to Eskom, Kusile Power Station.	4
2.3.3 Combustion: the condition of the exothermic reaction of a fuel with oxygen.....	4
2.3.4 Employer: Eskom, or Eskom Kusile Power Station or representative.....	4
2.4 Abbreviations	4
2.5 Roles and Responsibilities	5
2.5.1 Employer	5
2.5.2 Contractor	6
2.6 Process for Monitoring.....	6
2.7 Related/Supporting Documents	6
3. Document Content.....	7
3.1 Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD	7
3.2 Contractor Provisions	7
3.3 Management and Reporting	7
4. Acceptance.....	8
5. Revisions.....	8
6. Development Team	8
7. Acknowledgements	8
Appendix A – Eskom Document Hierarchy.....	9

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1. Introduction

Kusile Power Station C&I Maintenance management intends to establish a partnership with a suitably qualified: experienced and well-established *Contractor* for the maintenance of Steam Sample Rooms Unit 1- 6, CPP U1- 6, WTP Including FGD operating units. This document describes the details of the requirements and standards of the maintenance partnership.

2. Supporting Clauses

2.1 Scope

The objective of this maintenance contract involves functional checks, servicing and refurbishment, machining and/or installation setup of new equipment.

2.1.1 Purpose

The purpose of this document is to define the scope of work specified for Steam Sample Rooms C&I Maintenance, precise measurement, and control of the system.

The specified systems maintenance must support the requirement of the station to perform at maximum output.

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

2.1.2 Applicability

This document is applicable to Kusile Power Station Generation (Unit 1-6 Steam Sample Room - 9M Level).

2.1.3 Effective date

This document is effective from the date of authorisation (last signature) until its succeeding document has been authorised.

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] GGR 0992: Plant Safety Regulations
- [2] 240-132042241 Power Plant Controls & Instrumentation; Control Systems; Distributed Control Systems (DCS); Part 1: General Standard

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2.2.2 Informative

- [1] ISO 9001: Quality Management Systems
- [2] ISO 14001: Environmental management System
- [3] Act No 85 of 1993: Occupational Health and Safety Act & Regulations, 1993
- [4] Act No 102 of 1980: National Key Points Act, 1980

2.3 Definitions

2.3.1 Availability: Period when a system is operating satisfactory when used under specified conditions.

2.3.2 Contractor: Service provider contracted to provide a specific service to Eskom, Kusile Power Station.

2.3.3 Combustion: the condition of the exothermic reaction of a fuel with oxygen.

2.3.4 Employer: Eskom, or Eskom Kusile Power Station or representative.

2.4 Abbreviations

Abbreviation	Explanation
AP:	Appointed Person
C&I:	Control & Instrumentation
CM	Corrective Maintenance
CPP	Condensate Polishing Plant
FGD	Flue Gas Desulphurisation Plant
O2	Oxygen
NEC:	New Engineering Contract
OEM:	Original Equipment Manufacturer
OHS Act:	Occupational Health and Safety Act
PCLF:	Planned Capability Loss Factor
PPE:	Personal Protective Equipment
PM:	Plant Maintenance

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Abbreviation	Explanation
PSR:	Plant Safety Regulations
PTW:	Permit to Work
QC:	Quality Control
QCP:	Quality Control Plan
QMP:	Quality Management Programme
RP:	Responsible Person
SP	Skilled Person
SANS	South African National Standards
SHE:	Safety, Health, Environment
SOW:	Scope of Work
UCF:	Unit Capability Factor
UCLF:	Unplanned Capability Loss Factor
URS:	User Requirement Specification

2.5 Roles and Responsibilities

All parties concerned in this SOW "shall act as stated in this contract and in a spirit of mutual trust and cooperation"

2.5.1 Employer

- a) The *Employer* shall initiate the functional checks, servicing and refurbishment, machining and/or installation setup of new equipment at each interval.
- b) The *Employer* shall provide induction and ensure compliance before commencement of work.
- c) Provide sectional Managing Supervisors for all *Contractor* employees to supervise and monitor adherence to SOW.
- d) The *Employer* shall provide RP for the *Contractor* to do the work
- e) The *Employer* shall provide and maintain contract budget for services and spares required.

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2.5.2 Contractor

- a) All *Contractor* employees shall comply with Eskom's policies and site regulations, adherence to Eskom's Life Saving Rules, adherence to Generation Occurrence Management Procedure, Smoking Policy, zero tolerance on alcohol usage, etc.
- b) These requirements will be detailed during the induction session process.
- c) The successful *Contractor* shall utilise/provide skilled and suitably qualified staff (in line with Eskom Job specifications) with current experience in the Eskom power plants.
- d) All staff brought onto site in connection with this SOW should be able to fluently speak, understand and write in English.
- e) Proof of qualification must be provided 'as and when required' by the *Employer*.
- f) The *Contractor* ensures that all staff being brought to Kusile Power Station site has a valid fitness certificate based on the specified plant man-job specification.
- g) Provide daily supervision of all related plant sections through trained and competent personnel to ensure that inspections & work activities are conducted daily.
- h) The *Contractor* is expected to respond to faults that severely impacts the *Employer* Steam Sampling system maintenance within agreed hours as per the notification.
- i) The *Contractor* to maintain housekeeping after each activity in the steam sampling system.

2.6 Process for Monitoring

This specification shall be reviewed annually from date of initial authorisation or when necessary to conduct assessment on the following:

- a) Understanding processes and/or C&I maintenance as per *Employer's* instructions, around Steam sampling system C&I Maintenance.
- b) Authorisations to use test equipment and/or calibration.
- c) Ability to read and interpret Steam sampling system C&I Maintenance manuals.

2.7 Related/Supporting Documents

Not Applicable

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3. Document Content

The Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD Maintenance involves functional checks, servicing and refurbishment, machining and/or installation setup of new equipment.

The *Contractor* shall provide all maintenance services and spares 'as and when required' and execute all work necessary. All system must be accompanied by a quality control plan for each instrument attended.

All Works shall comply with professional engineering practice and standards, including design for the prevailing Safety, Health & environmental conditions.

Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD The works shall be for C&I.

3.1 Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD

Servicing of Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD in each respective commercially operating unit shall be conducted by qualified personnel and conversant with handling of pressurised steam equipment. Maintenance services must be conducted using non-defective tools to prevent explosions and injuries.

A service provider must also be able to provide:

Service and Refurbishment on each Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD.

Travelling to and from site on weekly basis and on emergency callouts.

Site labour conversant with pressurised system maintenance and calibration.

Refurbishment must be conducted in an approved facility and capable of issuing certificates/reports.

3.2 Contractor Provisions

- a) The *Contractor* shall provide all tools 'as and when required'.
- b) The *Contractor* shall provide all system maintenance tools relevant to Steam Sample Rooms Unit 1-6, CPP U1-6, WTP Including FGD System maintenance
- c) The *Contractor* shall provide and all system consumables (fuses, lugs, ferrules, cleaning utensils, gaskets, sealant, etc)
- d) The *Contractor* shall continuously provide all relevant PPE (Arc flash, stepladders, Safety Harness, etc)
- e) The *Contractor* shall provide calibrated measuring and test equipment

3.3 Management and Reporting

- a) The *Contractor* shall be responsible or held liable for any defects arising from maintenance/operational faults within 21 days after an intervention, provided that the equipment has been placed into service.

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**Kusile Power Station Steam Sampling System
C&I Maintenance Scope of Work**

Unique Identifier: <240-20250430>

Revision: 1

Page: 8 of 9

- b) The type of reports, level of detail and frequency of reporting will be mutually agreed by the *Employer* and the *Contractor*.
- c) These may change from time to time on request by the *Employer*.
- d) The *Contractor* to be represented at any ad-hoc meetings that may arise in order to address any production or safety related matters.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Gugulethu Vilakazi	Senior Technical Supervisor
Vusi Skosana	Engineer Prof Engineering
Stanley Mathye	C&I Maintenance Manager
Abel Vuma	Middle Manager Maintenance

5. Revisions

Note: Start with the latest Revision History in the first row and go backwards.

Date	Rev.	Compiler	Remarks
June 2024	01	G Vilakazi	New Document

6. Development Team

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

- a) Vusi Skosana
- b) Mvuselelo Shobede
- c) Marakeng Madigoe
- d) Gugulethu Vilakazi
- e) Thabang Tholo
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- g) Temosho Dibakoane

7. Acknowledgements

N/A

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Appendix A – Eskom Document Hierarchy

A.1 Document Hierarchy

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