Eskom	Strategy	Kusile Power Station

Title:	**Kusile Power Station Tender Technical Evaluation Strategy for Supply and Delivery of BFP Mobile Oil Purifier**	Unique Identifier:	**KUS-20250641**
		Alternative Reference Number:	**N/A**
		Area of Applicability:	**Maintenance**
		Documentation Type:	**Strategy**
		Revision:	**1**
		Total Pages:	**13**
		Next Review Date:	**June 2028**
		Disclosure Classification:	CONTROLLED DISCLOSURE

Compiled by	Supported by	Functional Responsibility	Authorised by
M Gomomo	MV Khumalo	SB Vezi	A Vuma
System Engineer	Senior Supervisor Mechanical	Turbine Maintenance Manager	Maintenance Group Manager
Date: 2025/07/11	Date: 11-07-2025	Date: 01/08/2025	Date: 2025-08-07

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1. Introduction

Kusile Power Station has one main BFP oil purifier per unit. The BFP Lube Oil System provides storage, cooling, filtering, purifying and pumping capabilities to circulate clean, cool lube oil at the required pressure through the bearings in the BFP set drive motor, and Boiler Feedwater Booster Pump, Boiler Feedwater Pump, and Vorecon hydraulic coupling. It also provides working oil for the Vorecon coupling. During outages it is required that the oil be drained and purified to spec, hence the project to purchase new mobile purifier units. This document the aims to outline the technical evaluation strategy for the procurement of BFP mobile Oil purifiers.

2. Supporting Clauses

2.1 Scope

This document is limited to Kusile Power Station BFP mobile purifier technical specifications and evaluation strategy

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

2.1.2 Applicability

This document shall apply to Kusile Power Station

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] 240-168966153: Generation Tender Technical Evaluation Procedure

[2] 240-48929482: Tender Technical Evaluation Procedure (Transmission and Distribution)

[3] 32-1033: Eskom Procurement and Supply Chain Management Policy

[4] 32-1034: Eskom Procurement and Supply Management Procedure

2.2.2 Informative

[5] ISO 9001:2015 Quality Management Systems.

[6] 240-106024999 Kusile Power Station – Feedwater and HP Heating Maintenance Spares Strategy.

2.3 Definitions

Definition	Explanation
Centrifuge	A device that uses centrifugal force to separate oil and water.
Controlled Disclosure	Controlled Disclosure to external parties (either enforced by law, or discretionary).
Lube oil	Oil used to lubricate and cool the Vorecon and BFP bearings.
Stakeholder	Is considered to be anyone that has an interest in the outcome of the project.

Definition	Explanation
Turbine Plant	A collection of the turbine centreline and auxiliaries' plants.

2.4 Abbreviations

Abbreviation	Description
BFP	Boiler Feed Pump
C&I	Control and Instrumentation
FAT	Factory Acceptance Test
OEM	Original Equipment Manufacturer
QCP	Quality Control Plan
SANS	South African National Standard
SOW	Scope of Work

2.5 Roles And Responsibilities

As per 240-168966153: Generation Tender Technical Evaluation Procedure for Generation:

2.5.1 Engineering Manager: All Engineering Managers throughout Generation shall ensure that all staff in their respective areas understand and adhere to this procedure.

2.5.2 Maintenance Manager: All Maintenance Managers throughout Generation shall ensure that all staff in their respective areas understand and adhere to this procedure**.**

2.5.3 Outage Manager: All Outage Managers throughout Generation shall ensure that all staff in their respective areas understand and adhere to this procedure.

2.5.4 Technical Evaluation Team (TET) member: The delegated technical representatives/end users/engineers/technical specialists who are responsible to review and evaluate technical aspects of the tender documentation as per the Tender Technical Evaluation Strategy. The TET members need to comply with the requirements as stipulated in the 240-106871290: Technical Evaluation Team Member Appointment Letter Template.

2.5.5 Accountable Manager: (Table 1) Responsible for appointment of technical evaluation team members.

2.5.6 Responsible Person: Responsible for the technical evaluation process

2.6 Process For Monitoring

N/A

2.7 Related/Supporting Documents

i. Kusile Power Station BFP Mobile Oil Purifier Units Supply and Delivery Technical Specification
ii. Scope of Work for Mobile Oil purifier for BFPs document

3. Tender Technical Evaluation Strategy

3.1 Technical Evaluation Threshold

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%.

3.2 TET Members

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Masande Gomomo	Turbine System Engineer
TET 2	Vincent Khumalo	Turbine Maintenance Snr Tech Sup
TET 3	Sibulelo Letsoenyo	Turbine Maintenance Technician

3.3 Mandatory Technical Evaluation Criteria

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	List of verifiable references for supply of mobile oil purifiers before. Minimum of two referees.	Section 3.2 of BFP oil purifier technical specification	Tenderer should prove that they can supply and have supplied the same equipment before to other clients
2.	The Tenderer shall have a valid ISO 9001:2015 certification or Quality management system complying with ISO9001:2015.	Section 3.3 of BFP oil purifier technical specification	Compliance to quality standards

3.4 Qualitative Technical Evaluation Criteria

The Tenderer shall provide technical data for the BFP mobile oil purifier units. The following information, as per table 3 below, should be included as a minimum.

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	**Purification Capacity**		**Section 3.5 of BFP Mobile Purifier Technical Specification**	**40**	
	1.1	Required Cleanliness specification (particle contamination) is 15/12 (maximum) according to ISO 4406	Mobile Oil purifier OEM datasheets or declaration of conformity		**40**
	1.2	Flow rate: Minimum of 10-20 Liters per minute.	Mobile Oil purifier OEM datasheets or declaration of conformity		**10**
	1.3	Removal of contaminants down to 3–5 microns or better.	Mobile Oil purifier OEM datasheets		**10**
	1.4	Water removal efficiency: Capable of reducing water content to less than 200 ppm.	Mobile Oil purifier OEM datasheets		**40**
2.	**Operating features**		**Section 3.6 of BFP Mobile Purifier Technical Specification**	**15**	
	2.1	Integrated filtration system with multi-stage filters for particle separation. 4000V 50hz power supply.	OEM manual		**40**
	2.2	Real-time monitoring for moisture and contamination levels with overload protection and emergency stop function.	OEM manual		**20**
	2.3	Temperature control to maintain oil integrity during operation (temperature range: ambient to 80°C).	OEM manual		**20**

	2.4	Oil heating system for viscosity management during purification.	OEM manual		**20**
3.	**Mobility**		**Section 3.7 of BFP Mobile Purifier Technical Specification**	**10**	
	3.1	Portable with heavy-duty wheels and ergonomic handles for easy transport.	Oil Purifier specification		**50**
	3.2	Suitable for on-site use in industrial environments.	Oil purifier specification		**50**
4.	**Durability**		**Section 3.8 of BFP Mobile Purifier Technical Specification**	**20**	
	4.1	Corrosion-resistant construction (e.g., stainless steel or durable alloys). Mobile purifier unit to be able to operate in humid conditions and dusty conditions at times.	Oil purifier specification		**50**
	4.2	Factory acceptance test certificate or equivalent	FAT or equivalent test certificate		**50**
5	**Training and maintenance**		**Section 3.11.3 and 3.11.4 of BFP Mobile Purifier Technical Specification**	**15**	
	5.1	Operating and maintenance manual submitted	OEM manual		**50**
	5.2	Confirmation of local technical support for maintenance and troubleshoot	Declaration of local supplier support		**20**
	5.3	List of spare parts for the supplied Mobile purifier unit.	List of spare parts		**30**
				TOTAL: 100	

3.5 TET Member Responsibilities

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
2	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**
1	X	X	X
2	X	X	X
3	X	X	X
4	X	X	X
5	X	X	X

3.6 Foreseen Acceptable / Unacceptable Qualifications

3.6.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	Technical compliance - Minor deviations to non-critical specifications or add-ons
2.	Alternative component brands with no compromise on quality
3.	Slight cosmetic defects with no impact on performance
4.	Preliminary drawings – supplier provides preliminary drawings initially, with final drawings after contract award or before delivery
5.	3rd party testing – supplier relies on 3rd party FAT labs other than in house

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Technical compliance – critical specifications not met (e.g. purification capacity and operation features)
2.	Missing key documentation e.g. OEM manual
3.	No spare parts list
4.	Substandard component used
5.	No relevant mobile oil purifier supply and delivery experience

3.6.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	Purification method difference – use of coalescer, vacuum dehydration or particulate filtration may vary in combination as long as performance is met
1.	Control system – manual or semi-automatic acceptable if it includes key indicators (e.g. flow, pressure, filter clogging)
2.	Mobility – trailer mount or wheel mount is acceptable
3.	Material integrity – stainless steel or industrial grade steel with corrosion protection for oil contact parts
4.	

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Flow rate significantly lower than the specified flow rate
2.	Inability to meet oil standards and water quantities as specified by ISO standards <200ppm
3.	Incompatible with station power supply requirements
4.	No controls or indications of key parameters (flow, filter clog indicator)
5.	No emergency shutdown or alarms
6.	Unit is completely immobile, lacking wheels or skid base for site relocation
7.	

Table 9: Qualitative Evaluation Criteria Scoring Table

Score	(%)	Definition
5	100	**COMPLIANT** • Meet technical requirement(s) AND; • No foreseen technical risk(s) in meeting technical requirements.
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** • Meet technical requirement(s) with; • Acceptable technical risk(s) AND/OR; • Acceptable exceptions AND/OR; Acceptable conditions.
2	40	**NON-COMPLIANT** • Does not meet technical requirement(s) AND/OR; • Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions.
0	0	**TOTALLY DEFICIENT OR NON-RESPONSIVE**

4. Authorisation

This document has been seen and accepted by:

Name	Designation	Signature
Abel Vuma	Engineering Manager	
Trishka Munilal	Turbine Engineering Manager	
Sibusiso Vezi	Turbine Maintenance Manager	
Zanele Kubheka	Project Coordinator	
Vincent Khumalo	Turbine maintenance supervisor	
Sibulelo Letsoenyo	Turbine maintenance Technician	
Hlobisile Hlewane	Outage Coordinator	

5. Revisions

Date	Rev.	Compiler	Remarks
June 2025	1	M Gomomo	Initial TES for BFP Oil Mobile Purifier supply and delivery project

6. Development Team

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

- S Letsoenyo
- V Khumalo

7. Acknowledgements

N/A