Eskom	Strategy	Engineering

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Compiled by	Functional Responsibility	Authorised by
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Boiler Engineer	**Boiler Engineering Manager**	**Engineering Manager**
Date: 16.10.2024	Date: 16/10/2024	Date: 01/11/2024

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TABLES

1. INTRODUCTION

A technical evaluation is a critical activity performed by engineers / technical specialists in accordance with Eskom Procurement and Supply Chain Management Policy (32-1033) and Eskom Procurement and Supply Management Procedure (32-1034) during the tender process.

The process to be followed in performing technical evaluations during the tender evaluation process must be consistent throughout Eskom Engineering.

This document shall ensure that a consistent, fair, transparent, impartial, and auditable process is followed to identify the highest technically ranked tenderer for Camden Power Station Refractory Removal and Application Contract.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document describes the technical evaluation criterion, team members and requirements for Camden Power Station Refractory Removal and Application Contract tender technical evaluation.

2.1.1 Purpose

The purpose of this document is to provide a consistent approach to: processes and principles to be followed when technically evaluating refractory removal and replacement contract tenders; responsibilities of individuals and reporting requirements by defining the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for the evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

2.1.2 Applicability

This document shall apply throughout Camden Power Station, and is more specific to the Boiler Engineering, Boiler Maintenance and Outages Departments.

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] 240-48929482: Tender Technical Evaluation Procedure

[2] 240-44682850: PCM - Provide Engineering During Project Sourcing

[3] 2-1033: Eskom Procurement and Supply Chain Management Policy

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

2.2.2 Informative

[1] 474-59: Internal Audit Procedure

[2] ISO 9001 Quality Management Systems

2.3 DEFINITIONS

Enquiry: A competitive or non-competitive request for information, interest, quotations or proposals made to a supplier, a group of suppliers or the market at large.

Tender: A tender refers to an open or closed competitive request for quotations / prices against a clearly defined scope / specification.

2.3.1 Classification

Controlled Disclosure: Controlled Disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
CV	Curriculum Vitae
GM	General Manager
MSDS	Material Safety Data Sheet
TET	Technical Evolution Team
QC	Quality Control
SHE	Safety Health and Environment
%	Percentage
&	And

2.5 ROLES AND RESPONSIBILITIES

- **Engineering Manager**: Is responsible for ensuring that all staff, in their respective areas understand and adhere to this tender technical evaluation strategy.
- **Plant Engineer**: The engineer is responsible to manage the execution and adherence to the Tender Technical Evaluation procedure and strategy.
- **Technical Evaluation Team (TET) member**: Is responsible to review and evaluate technical aspects of the tender documentation as per the Tender Technical Evaluation Strategy.

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

[1] 240-53716746: Tender Technical Evaluation Report Template

[2] 240-53716712: Tender Technical Evaluation Results Form Template

[3] 240-53716726: Tender Technical Evaluation Scoring Form Template

[4] 240-53716769: Tender Technical Evaluation Strategy Template

3. TENDER TECHNCIAL EVALAUTION 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%**. The threshold is set according to Tender Technical Evaluation Procedure (240-48929482).

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Phello Sejake	Boiler Engineer
TET 2	Sipho Ndhlovu	Senior Inspector Technical Welding
TET 3	Malusi Ngcobo	Senior technical Advisor Boiler
TET 4	Sydney Tshalane	Outage Coordinator
TET 5	Michelle Nchabeleng	Boiler Engineer

3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria shall not be weighted, or point scored but shall be assessed on a Yes/No basis as to whether the criteria are met. An assessment of 'No' against any criterion shall technically disqualify the tenderer and shall not be further evaluated against Qualitative Criteria.

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	**Reference to Technical Specification / Tender Returnable**	**Motivation for use of Criteria**
1.	All submission must be in English	All tender returnable documentation must be in English	To avoid confusion and misinterpretation of documentation during tender technical evaluation. To also align with Eskom official business language policy.
2.	Confirmation certificate of the oven ***OR*** Lease agreement of the oven meeting the required specification.	Oven certificate with specifications highlighted **&** Heat treatment capability plus chart	Proof of capability to execute scope: Refractory Blocks
3.	ISO 9001	Submit UpToDate certified copy of ISO 9001 compliance certificate.	ISO 9001 compliance promotes optimization, reduce waste, errors, and costs. This leads to increased efficiency and productivity within an organization. ISO 9001 encourages organizations to identify and manage risks proactively, which can prevent potential issues and enhance resilience.
4.	Company Experience	Proof of supply / manufacturing and installation of refractory on a boiler furnace. Submit a copy, signed by all parties, of previous order or contract with traceable references as a proof.	The technical capability based on proven experience to successfully perform the removal and application of refractory on a boiler furnace. To also ensure the highest quality of work possible.
5.	CIDB Registration Level 7 (CE) Civil Work	Submit proof of Level 7 CE CIBD	Requirement for civil work and construction
6.	Physical inspection of the oven after tenders' technical evaluation***. (This is***	Tenderer site visit – **submit address, contact details, and contact person** of where the oven is situated within South African borders. *The visit will*	Verification of capability to execute scope: Refractory Blocks

	applicable only to tenders who meet the required threshold of 70%)	*be arranged after evaluations are completed and minimum threshold of 70% is obtained.*	

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after determining that all the Mandatory Evaluation Criteria have been met. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion.

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	**Company Experience** Proof of supply / manufacturing and installation of refractory on industrial plants or equipment.		Submit previous order or contract with traceable references as a proof.	**30**	**30**
2.	**Site Supervisor**			**15**	**-**
	2.1	Boiler plant experience **(5+ years' experience)**	Submit a CV with traceable reference the CV must be accompanied by certified copies of training certificates.	**-**	**6**
	2.2	Safety: Legal liability training	Submit certified copies of training certificates.	**-**	**3**
	2.3	Safety: Confine space Training	Submit certified copies of training certificates.	**-**	**3**
	2.4	Basic rigging training **(3+ years' experience)**	Submit certified copies of training certificates.	**-**	**3**
3.	**Bricklayer**			**10**	**-**

	3.1	Bricklaying experience **(2+ years' experience)**	Submit a CV with traceable reference the CV must be accompanied by certified copies of Trade test in Bricklaying.	**-**	**10**
4.	**Quality Control (QC) Personnel**			**10**	**-**
	4.1	QC experience **(2+ years' experience)**	Submit a CV with traceable reference the CV must be accompanied by certified copy of Total Quality Management certificate.	**-**	**5**
	4.2	Computer Literacy	Submit certified copy of Computer Literacy certificate.	**-**	**5**
5.	**SHE Representative**			**5**	**-**
	5.1	SHE Rep. experience **(2+ years' experience)**	Submit a CV with traceable reference the CV must be accompanied by certified copies of SAMTRACK or SAFETY DIPLOMA certificate.	**-**	**5**
6.	**Demonstration of capability to execute scope**			**30**	**-**
	6.1	**Material supply and Manufacturing of blocks:** Operating Temperature Minimum: 1450`C Application: Economiser side wall deflection blocks Thermal conductive: Yes Thermal conductivity Minimum: 4 (W/m.K) Abrasive area: Yes Brick / cast able: Yes Maximum water mixture: 4.5%-6% Cold crush strength 110`C Minimum: 110 MPa	MSDS to be provided for manufacturing.	**-**	**10**

		Minimum SiC%: 55% Alumina min AI2O3%: 12% Iron oxide Fe2O3 Min%: 1.3% Optimised fibre mix%: 2% of mixture			
	6.2	**Material data sheet (MSDS) Top Nose:** Temperature: Minimum 1450`C Application: Top Nose Thermal conductive: Yes Thermal conductivity: Minimum 4 (W/m.K) Abrasive area: Yes Brick / cast able/ throw able: Throw able Maximum water mixture: 4.5%-6% Cold crush strength 110`C: Minimum 110 MPa Minimum SiC%: 55% Alumina min AI2O3%: 12% Iron oxide Fe2O3% Min: 1.3% Optimised fibre mix%: 2% of mixture	MSDS to be provided for manufacturing.	**-**	**10**
	6.3	**Material data sheet (MSDS) : Boiler walls:** Operating Temperature: Minimum 750`C Application: Rear wall Inner skin casing Thermal conductive: Medium to low Minimu(W/m.K) Abrasive area: No Brick / cast able/ throw able: Throw able Maximum water mixture: 5.5 %-8% Cold crush strength 110`C: Minimum 65 MPa Minimum SiC%: 0% Silica SIO2: minimum 8%	MSDS to be provided for manufacturing.	**-**	**10**

		Lime CAO: minimum 3% Alumina min AI2O3%: 70% Iron oxide Fe2O3%: Min 1.3% Optimised fibre mix% 2% of mixture			
				TOTAL: 100	

3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
6	X	X	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**	**TET 4**	**TET 5**
1	X	X	X	X	X
2.1	X	X	X	X	X
2.2	X	X	X	X	X
2.3	X	X	X	X	X
2.4	X	X	X	X	X
3.1	X	X	X	X	X
4.1	X	X	X	X	X
4.2	X	X	X	X	X
5.1	X	X	X	X	X
6.1	X	X	X	X	X
6.2	X	X	X	X	X
6.3	X	X	X	X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	**MSDS's do not have some of the information requested for, but the information missing is not important**

Table 6: Unacceptable Technical Risks

Risk	Description
1.	**One or more of mandatory requirements not achieved**
2.	**No information and / or proof of requirements is provided**
3.	**MSDS's are not provided (Completely missing from the submission)**
4.	**Submission using other languages other than English**

3.6.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	**None**

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	**Duplicates / similar CVs are submitted for different tenderers – procurement department must decide on the way forward before the condition can be accepted or rejected.**
2.	**Submission using other languages other than English – procurement department must decide on the way forward before the condition can be accepted or rejected. This include the right interpretation and translation of other languages.**

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Sipho Ndhlovu	Senior Inspector Technical Welding	
Malusi Ngcobo	Senior technical Advisor Boiler	
Sydney Tshalane	Outage Coordinator	
Michelle Nchabeleng	Boiler Engineer	

5. REVISIONS

Date	Rev.	Compiler	Remarks
August 2024	1	PA Sejake	Original document

6. DEVELOPMENT TEAM

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

Sipho Ndhlovu

7. ACKNOWLEDGEMENTS

None