Eskom	Tutuka Power Station Strategy	Boiler Engineering

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Compiled by	**Functional Responsibility**	**Authorised by**
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System Engineer	**Boiler Engineering Manager (Acting)**	**Engineering Manager**
Date: ……	Date: ……	Date: ……

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1. INTRODUCTION

Tutuka Power Station has a comprehensive preventative plan to carry out Maintenance on the six boilers during the General Overhaul (GO) and Interim Repair (IR) philosophy outages. The inspection and subsequent repair scope is in line with the station's Test and Inspection Plan. Various boiler tubing is required to ensure that the boiler maintenance during outages is undertaken to increase plant availability and reduce load losses. The mitigation strategy decided upon is to replace the affected boilers on units 1 – 6 during opportunity maintenance and long term major overhauls. The evaluation criteria detailed in this document relates to the procurement of the correct material and quantity to eliminate the said risk.

2. SUPPORTING CLAUSES

2.1 SCOPE

Strategy for technical evaluation for the Procurement of various Boiler Tubing material.

2.1.1 Purpose

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

2.1.2 Applicability

This document is applicable to Boiler Engineering and all relevant stakeholders involved with the technical tender evaluation process for the Procurement of various Boiler Tubing material.

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 Engineering Evaluation Procedure

[2] ISO 9001: Quality Management Systems

[3] 240-106628253: Eskom Welding Rulebook

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

[5] 240-87733094: Procurement of High Pressure Pipework and Boiler Tubing Material Standard in the Generation Division

2.2.2 Informative

N/A

2.3 DEFINITIONS

N/A

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
GO	General Overall
ID	Inside Diameter
IR	Interim Repair
ISO	International Organization for Standardization
ITP	Inspection and Test Plan (s)
PEI	Production Engineering Integration
TET	Technical Evaluation Team
QCP	Quality Control Procedure
QMS	Quality Management System
WPS	Welding Procedure Specification (s)

2.5 ROLES AND RESPONSIBILITIES

All responsibilities have been defined in the Tender Engineering Evaluation Procedure (240-48929482).

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

[1] 240-48929482: Tender Engineering Evaluation Procedure

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%.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1		Boiler System Engineer
TET 2		Outage Coordinator
TET 3		Senior Supervisor Technician Welding
TET 4		Metallurgist
TET 5		Boiler Senior Engineer

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description. **(Ref: para 3.1.2 in Eskom Standard)**	**Motivation for use of criteria**	**Score Criteria**	**Score**
1	**For EN Materials:** Verifiable valid certificate of conformity by a Third Party/Notified Body (in accordance with EN 764-5 (Clause 4) or AD 2000-Merkblatt W 0), that demonstrates that the material manufacturing plant has been audited and authorised as having a quality assurance system for material manufacture in accordance with PED 97/23/EC or 2014/68/EU (Pressure Equipment Directive), to produce the material grades and dimension ranges tendered for. This certificate should be accompanied by the Appendices containing all material, size ranges and harmonised standards approved. Where CE marking is available, the EU declaration of conformity for each product type (material grades and dimensions) tendered for must be included. It will be mandatory to provide the name, address and contact number of the Third Party/Notified Body that carried out the conformity assessment upon contract award.	To ensure that the manufacturing plant has been audited and complies with the relevant Pressure Equipment Directives for the manufacturing of the required material grades.	Yes / No	
2	Declaration of full compliance to Eskom Standard 240-87733094 Rev 3 on all finished products. Note: Deviations to the standard must be submitted as concessions and agreed on by both parties during tender negotiations.	Ensure Compliance to Eskom Standard	Yes / No	
3	Lead times for delivery of various tubing	Ensure that outage replacements are carried out as per the engineering scope of work		

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	History of material supplied and quantity	Returnable: A list must be supplied of all material supplied over the past five years, with particular attention paid to the material required as part of the order and with verifiable references by the supplier. (Eskom different material stock number for 15MO3,13CrMo44, 10CrMo910 tubing, material DCF's to be supplied with the tender) • List of the three grades (15MO3,13CrMo44, 10CrMo910) material supplied with verifiable reference for past five years = 5 • List with no verifiable reference for past five year = 0	20	

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
2.	History of lead times for material supplied	Returnable: A list must be supplied of all material supplied over the past five years, with particular attention paid to the required and achieved lead times (maximum 6 months average lead time) and with verifiable references. • Lead times < 6 months = 5 • Lead time 7 to 8 months =2 • Lead times > 8 months = 0	10	-
3.	History of supply of boiler piping contract	Returnable: A list of boiler piping supply contracts in the past ten 10 years with respective power stations and including verifiable references must be supplied. • Two or more supply contracts= 5 • Less than one= 2 • No supply contract =0	30	
4.	ISO9001 certified	Returnable: Submit supplier ISO9001 certificate ISO9001 certified = 5 ISO9001 compliant and in process of getting full certification = 4 ISO9001 certification expired = 2 No ISO9001 certification= 0	10	

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
5.	**Details of manufacturing plant / previous history of supply:** **(Ref: para 3.1.3.1 & 3.1.3.2 in Eskom Standard)**		20	
5.1	(a) Details of Manufacturing Plant: Formal business name of the manufacturing plant, street and postal address, contact names and telephone numbers of senior plant managers, along with their organisational roles. (b) The manufacturing plant is the site of manufacturing, inspection, testing, and release. If any activity is carried out at a different location or facility other than the main manufacturing plant, this shall be duly disclosed in the tender submission (clearly showing the scope/activities that will be done at a different plant location) and the same information shall be provided for the plant/site where other activities will be performed. (c) Previous History of Supply: A list of material manufactured at the plant, with particular regard to the materials required as part of the tender, shall be supplied. (d) This should include a reference list with contact details of the end users, dates of delivery, material grade, dimensions, harmonised standards applied and tonnage.	Details of manufacturing plant, scope/activities, previous history of supply and full reference list submitted (100%= 5) Details of manufacturing plant, scope/activities , previous history of supply and reference list submitted without end users contacts and dates of delivery (80% = 4) Details of manufacturing plant, and scope/activities or previous history of supply submitted only (40% = 4) Nothing submitted (Non responsive = 0)		100
6.	**Heat Treatment** **(Ref: para 3.1.3.4 in Eskom Standard)**		10	

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
6.1	A valid or current calibration certificate(s) for the facilities used for the heat treatment shall be provided with the tender submission. The actual current calibration certificate for the Eskom order shall be furnished in the data books	A valid or current calibration certificate(s) for the facilities used for the heat treatment submitted (100% = 5) Nothing submitted (Non-responsive = 0)		

Table 4: 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**
Note 1: The scoring table does not allow for scoring of 1 and 3. **Note 2**: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.		

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5
1.	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.	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

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	Qualitative 1: Material supplied history includes pressurised tubing/piping, but does not include the same material composition as order requirement.
2.	Qualitative 2: Material supplied history average lead times of six months taking in consideration shipping constraints
3.	Qualitative 3: None
4.	Qualitative 4: Supplier is ISO 9001 compliant and in a process of full certification.
5.	Qualitative 5: None
6.	Qualitative 6: None

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Qualitative 1: Material supplied history does not include pressurised tubing/pipework and does not include the same material composition as order requirement or references cannot be verified.
2.	Qualitative 2: Material supplied history average lead times is more than eight months taking in consideration shipping constraints
3.	Qualitative 3: Material supplied contract does not include pressurised tubing/pipework and does not include the same material composition as order requirement or references cannot be verified.
4.	Qualitative 4: No ISO 9001 certification
5.	Qualitative 5: Nothing submitted
6.	Qualitative 6: Nothing submitted

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	Qualitative 1: None
2.	Qualitative 2: N/A
3.	Qualitative 3: N/A
4.	Qualitative 4: ISO 9001 Compliant
5.	Qualitative 5: N/A
6.	Qualitative 6: N/A

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Qualitative 1: < 1 year supply history
2.	Qualitative 2: Material supplied history average lead times is more than eight months
3.	Qualitative 4: No QMS plan exists
4.	Qualitative 6: No calibration certificate(s) for the facilities used for the heat treatment

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
	Chief Metallurgist
	Boiler Specialist
	Boiler Maintenance Manager
	Maintenance Manager
	Lucas Nyambe
	Senior Technician Mechanical
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5. REVISIONS

Date	Rev.	Compiler	Remarks
Oct 2024	1	IE Uyangaphi	New Document
Sep 2025	2	IE Uyangaphi	Expand/clarify the scoring on the qualitative criteria

6. DEVELOPMENT TEAM

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

7. ACKNOWLEDGEMENTS

N/A