Eskom	Strategy	Engineering

Title: **Tender Technical Evaluation Strategy – Boiler Tubing Supply and Delivery**

Unique Identifier:	**KUS-20250530**
Alternative Reference Number:	
Area of Applicability:	**Engineering**
Documentation Type:	**Strategy**
Revision:	**01**
Total Pages:	**22**
Next Review Date:	**Not applicable**
Disclosure Classification:	**CONTROLLED DISCLOSURE**

Compiled by	Supported by	Functional Responsibility	Authorized by
Musa Ngwane	**George Mthimkhulu**	**Siyakudumisa Mtsweni**	**Grace Olukune**
Senior Engineer	**Senior Engineer**	**Boiler Engineering Manager**	**Engineering Manager**
Date: 2025/05/19	**Date:** 2025/05/19	Date: 20.05.2025	Date: 2025.05.20

CONTENTS

Page

1. INTRODUCTION 3

2. SUPPORTING CLAUSES 3

2.1 SCOPE 3
2.1.1 Purpose 3
2.1.2 Applicability 3
2.2 NORMATIVE/INFORMATIVE REFERENCES 3
2.2.1 Normative 3
2.2.2 Informative 4
2.3 DEFINITIONS 4
2.3.1 Classification 4
2.4 ABBREVIATIONS 4
2.5 ROLES AND RESPONSIBILITIES 4
2.6 PROCESS FOR MONITORING 5
2.7 RELATED/SUPPORTING DOCUMENTS 5

3. TENDER TECHNCIAL EVALAUTION STRATEGY 5

3.1 TECHNICAL EVALUATION THRESHOLD 5
3.2 TET MEMBERS 5
3.3 MANADATORY TECHNICAL EVALUATION CRITERIA 6
3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA 8
3.5 TET MEMBER RESPONSIBILITIES 14
3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS 20
3.6.1 Risks 20
3.6.2 Exceptions / Conditions 20

4. AUTHORISATION 22

5. REVISIONS 22

6. DEVELOPMENT TEAM 22

7. ACKNOWLEDGEMENTS 22

TABLES

Table 1: TET Members 5
Table 2: Mandatory Technical Evaluation Criteria 6
Table 3: Qualitative Technical Evaluation Criteria 8
Table 4: TET Member Responsibilities 19
Table 5: Acceptable Technical Risks 20
Table 6: Unacceptable Technical Risks 20
Table 7: Acceptable Technical Exceptions / Conditions 20
Table 8: Unacceptable Technical Exceptions / Conditions 21

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 the Kusile boiler tubing contract.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document describes the technical evaluation criterion, team members and requirements for the Kusile Boiler Tubing contract tender technical evaluation.

2.1.1 Purpose

The purpose of this strategy document is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for the Boiler Tubing strategic stock material 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 the procurement of Boiler Tubing strategic stock material for 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] 240-48929482: 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

[5] 240-87733094: Procurement of Seamless Steel High Pressure Pipework and Boiler Tubing Material Standard in the Generation Division Rev 3.

[6] BS EN 10216: Seamless Steel Tubes for Pressure Purposes – Technical Delivery Conditions.

[7] BS EN 13480: Metallic industrial piping.

[8] BS EN 12952: Water-tube boilers and auxiliary plant.

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
EDWL	Engineering Design Work Lead
GM	General Manager
LDE	Lead Discipline Engineer
CE	“Conformite European” -European Conformity
EN	“Europaische Norm” - European Standard
EU	European Union
HP	High Pressure
hrs	Hours
ISO	International Organization for Standardization
PED	Pressure Equipment Directive
TET	Technical Evaluation Team

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	Musa Ngwane	Snr Boiler Engineer
TET 2	George Mthimkhulu	Snr Boiler Engineer
TET 3	Teboho Molokwane	Chief Metallurgical Engineer (Kusile and Medupi)
TET 4	Shonees Sterris	Site Metallurgist
TET 5	Silas Mathaile	Boiler Maintenance Supervisor

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 or not 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.	Manufacturing Plant Compliance	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. ***The submitted (EN 764-5 or AD 2000-W 0) certificate of conformity shall ideally contain the following***: • Scope of Approval 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. ***Where the detailed appendices are not part of the EN 764-5 certificate of conformity, the following shall be provided***: • Ideally a Scope of Approval appendice in accordance with the requirements of AD 2000-W 0 should be supplied. • Should neither Scope of Approval (EN 764-5 or AD 2000-W 0) be available a comprehensive Previous History of Supply must be supplied. This must include a list of material manufactured at the plant, with particular reference to the materials and dimensions required as part of the	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.

		tender. This should consist of a reference list with contact details of the end users, dates of delivery, material grade, dimensions, harmonised standards applied and tonnage. It is mandatory in all cases to provide the name, address and contact number of the Third Party/Notified Body that carried out the conformity assessment.	
2.	Declaration of full compliance	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
3.	Accreditation	ISO 9001:2015 Certified (Provide valid certificate)	Certifications demonstrate company's adherence to safety standards and industry best practices.

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.	**Details of manufacturing plant / previous history of supply: (Ref: para 3.1.3.1 & 3.1.3.2 in Eskom Standard)**			**20**	**-**
	1.1	Manufacturing Plant Details	(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. **Score Criteria** 100% = 5 80% = 4	**-**	**70**

			40% = 2 Non-responsive = 0		
	1.2	Previous History of Supply	(a) 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. (b) This should include a reference list with contact details of the end users, dates of delivery, material grade, dimensions, harmonised standards applied and tonnage. **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0	**-**	**30**
2.	**Steel-making process (Ref: para 3.1.3.3 in Eskom Standard)**			**20**	
	2.1	Foundries Compliance	The foundries (if different from the material manufacturing plant) that will be used to supply cast billets for the manufacture of boiler tubing shall be listed in the tender returnable documents, along with relevant certification of the suppliers' quality management system/process, such as a valid or current ISO 9001 certificate or comprehensive quality manuals (where an ISO certificate is not	**-**	**40**

			available). This information shall be provided with the tender submission **Score Criteria** 100% = 5 Non-responsive = 0		
	2.2	Production Process	(a) The manufacturer shall provide Eskom (also in tender returnables) with a short technical description of its process to ensure the production of “clean” steel within the limits of this Standard. (b) Raw material and scrap control by foundries must demonstrate low contamination levels with trace impurities and dangerous (i.e. poisonous and radioactive) elements. (c) Only fully killed steels will be acceptable. **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0	**-**	**60**
3.	**Heat Treatment (Ref: para 3.1.3.4 in Eskom Standard)**			**20**	
	3.1		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	**-**	**60**

			Score Criteria 100% = 5 Non-responsive = 0		
			(a)The fully annotated heat treatment schedule for each material tendered for shall be supplied with the tender documents. (b) The heat treatment schedule shall as a minimum contain methods of heating and cooling, heating and cooling rates, holding temperature ranges and holding times. (c) These heat treatment schedules may be provided in the form of a schematic heat treatment dummy chart **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0		**40**
4.	**Chemical composition (Ref: para 3.1.3.5 in Eskom Standard)**			**15**	
	4.1		Declaration of compliance with chemical composition as per EN 10216 (latest revision) **Score Criteria** Declaration submitted = 5 Non-responsive = 0	**-**	**100**

5.	**Creep Data (Ref: para 3.1.3.7 in Eskom Standard)**			**15**	
	5.1	Creep Test Data	In line with the provisions of Appendix B of EN 12952-2, the material manufacturer shall furnish to Eskom verification of the creep test results for materials intended for operation in the creep range (≥450°C). The creep tests results shall be based on tests conducted by the material manufacturer from heats of a given material produced from its own plant and procedures. The creep tests results shall be based on actual data for each material grade tendered for or quoted in tender returnable documents. The minimum test duration for the actual creep test shall be 40 000 hrs. The material manufacturer shall provide this data with the tender submission or provide a written declaration that the data exists and will be made available to Eskom personnel during a factory or site assessment or at any stage (when arrangements are made and communicated) prior to contract award. **Score Criteria** Creep data/ Declaration submitted = 5 Non-responsive = 0	**-**	**100**

6.		**Certification (Ref: para 3.1.3.9 in Eskom Standard 240-87733094)**		**10**	
	6.1		Declaration of compliance to the certification requirements as per Eskom Standard referenced above **Score Criteria** Declaration submitted = 5 Non-responsive = 0		**100**
				TOTAL: 100	

Table 4: Factory Assessment - Qualitative Technical Evaluation CriteriaNote: This is a validation process of the tender submissions and requirements.

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
7.	**Details of manufacturing plant / previous history of supply: (Ref: para 3.1.3.1 & 3.1.3.2 in Eskom Standard)**			**20**	**-**
	1.1	Manufacturing Plant Details	(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. **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0	**-**	**70**
	1.2	Previous History of Supply	(a) Previous History of Supply: A list of material manufactured at the plant, with particular regard to the materials	**-**	**30**

			required as part of the tender, shall be supplied. (b) This should include a reference list with contact details of the end users, dates of delivery, material grade, dimensions, harmonised standards applied and tonnage. **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0		
8.	**Steel-making process (Ref: para 3.1.3.3 in Eskom Standard)**			**20**	
	2.1	Foundries Compliance	The foundries (if different from the material manufacturing plant) that will be used to supply cast billets for the manufacture of boiler tubing shall be listed in the tender returnable documents, along with relevant certification of the suppliers' quality management system/process, such as a valid or current ISO 9001 certificate or comprehensive quality manuals (where an ISO certificate is not available). This information shall be provided with the tender submission **Score Criteria** 100% = 5 Non-responsive = 0	**-**	**40**

	2.2	Production Process	(a) The manufacturer shall provide Eskom (also in tender returnables) with a short technical description of its process to ensure the production of “clean” steel within the limits of this Standard. (b) Raw material and scrap control by foundries must demonstrate low contamination levels with trace impurities and dangerous (i.e. poisonous and radioactive) elements. (c) Only fully killed steels will be acceptable. **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0	**-**	**60**
9.	**Heat Treatment (Ref: para 3.1.3.4 in Eskom Standard)**			**20**	
	3.1		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 **Score Criteria** 100% = 5 Non-responsive = 0	**-**	**60**
			(a)The fully annotated heat treatment schedule for each material tendered		**40**

			for shall be supplied with the tender documents. (b) The heat treatment schedule shall as a minimum contain methods of heating and cooling, heating and cooling rates, holding temperature ranges and holding times. (c) These heat treatment schedules may be provided in the form of a schematic heat treatment dummy chart **Score Criteria** 100% = 5 80% = 4 40% = 2 Non-responsive = 0		
10.	**Chemical composition (Ref: para 3.1.3.5 in Eskom Standard)**			**15**	
	4.1		Declaration of compliance with chemical composition as per EN 10216 (latest revision) **Score Criteria** Declaration submitted = 5 Non-responsive = 0	**-**	**100**
11.	**Creep Data (Ref: para 3.1.3.7 in Eskom Standard)**			**15**	
	5.1	Creep Test Data	In line with the provisions of Appendix B of EN 12952-2, the material manufacturer shall furnish to Eskom verification of the creep test results for materials intended for operation in the	**-**	**100**

			creep range (≥450°C). The creep tests results shall be based on tests conducted by the material manufacturer from heats of a given material produced from its own plant and procedures. The creep tests results shall be based on actual data for each material grade tendered for or quoted in tender returnable documents. The minimum test duration for the actual creep test shall be 40 000 hrs. The material manufacturer shall provide this data with the tender submission or provide a written declaration that the data exists and will be made available to Eskom personnel during a factory or site assessment or at any stage (when arrangements are made and communicated) prior to contract award. **Score Criteria** Creep data/ Declaration submitted = 5 Non-responsive = 0		
12.		**Certification (Ref: para 3.1.3.9 in Eskom Standard 240-87733094)**		**10**	
	6.1		Declaration of compliance to the certification requirements as per Eskom Standard referenced above **Score Criteria**		**100**

			Declaration submitted = 5 Non-responsive = 0		
				TOTAL: 100	

3.5 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
2	X	X	X	X	X
3	X	X	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**	**TET 4**	**TET 5**
1.1	X	X	X	X	X
1.2	X	X	X	X	X
2.1	X	X	X	X	X
2.2	X	X	X	X	X
3.1	X	X	X	X	X
3.2	X	X	X	X	X
4.1	X	X	X	X	X
5.1	X	X	X	X	X
6.1	X	X	X	X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	**Some information is missing, while meeting the mandatory and qualitative threshold**

Table 7: Unacceptable Technical Risks

Risk	Description
1.	**All mandatory requirements not achieved will results in immediately disqualification (no further technical evaluation)**
2.	Inexperienced manufacturers fabricating boiler tubing in grades of materials not commonly used and known to them
3.	Non-compliance to critical aspects of the Eskom and EN requirements
4.	Possible lack of experience in fabricating, testing and certification to EN codes
5.	
6.	
7.	
8.	

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	**None**

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Any deviations to the technical requirements without approved concessions

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
France Mabula	Project Co Ordinator Technical	
Silas Mathaile	Senior Supervisor	
Pogiso Mavusa	Senior technical Advisor Boiler	
Given Rikhotso	Boiler Maintenance Manager	
Ditiro Khuto	Plant Care Engineer	

5. REVISIONS

Date	Rev.	Compiler	Remarks
May 2025	01		Original document

6. DEVELOPMENT TEAM

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

Musa Ngwane - Snr Boiler Engineer

George Mthimkhulu - Snr Boiler Engineer

Teboho Molokwane - Chief Metallurgical Engineer (Kusile and Medupi)

Shonees Sterris – Kusile Site Metallurgist

Silas Mathaile - Boiler Maintenance Supervisor

7. ACKNOWLEDGEMENTS