

Title: **Tender Technical Evaluation Strategy for Supply and delivery of 50% drain valves at Tutuka Power Station.**

Unique Identifier: **559-67076520**

Alternative Reference Number: **N/A**

Area of Applicability: **Tutuka Power Station**

Functional Area: **Engineering**

Revision: **1**

Total Pages: **10**

Next Review Date: **As Required**

Disclosure **CONTROLLED DISCLOSURE**
Classification:

Compiled by

Functional Responsibility

Authorised by

.....

.....

.....

Boiler System Engineer

Boiler Senior Engineer

Engineering Manager

Date:

Date:

Date:

CONTENTS

	Page
1. INTRODUCTION	3
2. SUPPORTING CLAUSES	3
2.1 FINDINGS.....	3
2.2 SCOPE OF WORKS	4
2.2.1 Purpose	4
2.2.2 Applicability.....	5
2.2.3 Effective Date	5
2.3 NORMATIVE/INFORMATIVE REFERENCES.....	5
2.3.1 Normative	5
2.3.2 Informative.....	5
2.4 DEFINITIONS.....	5
2.4.1 Classification	6
2.5 ABBREVIATIONS.....	6
2.6 ROLES AND RESPONSIBILITIES.....	6
2.7 PROCESS FOR MONITORING	6
2.8 RELATED/SUPPORTING DOCUMENTS	6
3. TECHNICAL EVALUATION STRATEGY.....	6
3.1 TECHNICAL EVALUATION THRESHOLD	6
3.2 TET MEMBERS.....	6
3.3 TECHNICAL EVALUATION CRITERIA	7
3.3.1 MANDATORY Technical Evaluation Criteria	7
3.3.2 Qualitative Technical Evaluation Criteria	7
4. TET MEMBER RESPONSIBILITIES	8
5. FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS	9
6. AUTHORISATION.....	10
7. REVISIONS	10
8. DEVELOPMENT TEAM	10
9. ACKNOWLEDGEMENTS	10

CONTROLLED DISCLOSURE

1. INTRODUCTION

Tutuka Power Station's emergency 50% blowdown drain valves are critical components of the boiler drain system and play an important role in maintaining the collecting vessel level during unit start-up and shutdown, particularly while the boiler is operating in non-Benson mode. Failure of these valves can prevent effective level regulation and may result in unit trips, production losses, delayed return to service, and, in severe cases, water carry-over to the platen superheater and associated boiler tube failures.

The existing 50% emergency drain valves have experienced recurring reliability problems over an extended period. The investigation into these failures established that ageing equipment, deterioration of valve components, and inadequate actuator capability contributed significantly to the recurring failures. The existing Siemens actuators were found to be obsolete and undersized for the actual operating conditions, resulting in excessive loading, thermal overloads, motor failures, and unreliable valve operation.

The procurement of replacement 50% emergency drain valves therefore presents an opportunity to address the historical reliability concerns through the selection of equipment that is technically suitable, reliable, maintainable, and capable of providing long-term availability.

The technical evaluation will consequently place equipment availability and reliability as the primary focus of the procurement. The assessment will not be limited to basic compliance with pressure, temperature, material, dimensional, and functional requirements. Consideration will also be given to the supplier's ability to provide proven equipment and readily available spare valves.

The objective of this procurement is therefore to select a reliable and sustainable 50% emergency drain valve solution that maximises plant availability and minimises lifecycle risk. The evaluation of the tender is based on the tenderer's ability to meet both mandatory and qualitative requirements specified for the scope of work. A weighted score card approach will be used to evaluate the tenders against the Employer's requirement.

2. SUPPORTING CLAUSES

2.1 FINDINGS

The existing 50% emergency drain valves have experienced recurring reliability problems over an extended period. The investigation into these failures established that ageing equipment, deterioration of valve components.

CONTROLLED DISCLOSURE

2.2 SCOPE OF WORKS

A technical evaluation strategy for the Supply and delivery of two 50% blowdown isolating drain valves to Tutuka Power Station.

- **Valve:** Sempell
- **Type:** GES
- **Valve type:** wedge Gate
- **Nominal size:** DN200/250
- **Design pressure:** 25 MPa
- **Design Temperature:** 375 °C
- **Material:** 13CrMo4-5
- **Stock number :** 0789096

2.2.1 Purpose

The purpose of this document is to provide the Technical Evaluation Strategy (TES) for the procurement, supply and delivery of 50% emergency blowdown isolating drain valves for Tutuka Power Station. The objective is to establish a technically suitable and reliable valve solution that will improve equipment availability and address the recurring reliability failures experienced with the existing 50% emergency drain valves.

This document will cover the various aspects that will be evaluated and scored by the Technical Evaluation Team (TET) to complete the technical evaluation of the enquiry. The evaluation will place particular emphasis on availability, reliability, maintainability and lifecycle support, considering the critical function of the 50% emergency drain valves within the boiler system. The TET members will be listed and appointed in this document, together with their respective responsibilities. The Technical Evaluation Strategy will define the following technical evaluation criteria:

- Mandatory and qualitative evaluation criteria
- Valve technical suitability
- Supplier technical capability and experience
- Technical Documentation and Quality Assurance
- TET Member Responsibilities

CONTROLLED DISCLOSURE

The evaluation will ensure that the proposed valve solution is capable of meeting the actual operating requirements at Tutuka Power Station, including the required pressure and temperature conditions, high differential pressure, modulating duty, minimum operating frequency of 40 cycles per minute, required travel time, and associated torque requirements.

Availability and reliability will be the core focus of the technical evaluation, with the objective of selecting equipment that will minimise unplanned failures, maintenance interventions, forced outages and associated production losses throughout the expected service life of the valves. Once the Technical Evaluation Strategy is authorised, no changes will be made to the evaluation criteria without the appropriate authorisation.

2.2.2 Applicability

This document applies to the The Supply and delivery of the 50% emergency drain valves at Tutuka Power Station.

2.2.3 Effective Date

When the document is authorised.

2.3 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.3.1 Normative

- [1] 240-48929482: Tender Technical Evaluation Procedure.
- [2] ISO 9001 Quality Management Systems.
- [3] 32-1034: Eskom Procurement and Supply Chain Management Procedure.
- [4] 32-1033: Eskom's Procurement and Supply Chain Management Policy.
- [5] ISO 9001 Quality Management Systems.
- [6] 240-53114186: Document and Records Management.
- [7] 240-53665024: Engineering Quality Manual.
- [8] ISO 9001: Quality Management Systems.

2.3.2 Informative

None

2.4 DEFINITIONS

None

CONTROLLED DISCLOSURE

2.4.1 Classification

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

2.5 ABBREVIATIONS

Abbreviation	Description
TET	Technical Evaluation Team
TES	Technical Evaluation Strategy

2.6 ROLES AND RESPONSIBILITIES

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

2.7 PROCESS FOR MONITORING

N/A.

2.8 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

3. TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

A weighted score-card approach is used to evaluate the technical compliance of the supplier against the specifications or ability to supply the required spares. The minimum weighted final score (threshold) required for the Supplier/Contractor 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		System Engineer
TET 2		System Engineer
TET 3		System Engineer

CONTROLLED DISCLOSURE

3.3 TECHNICAL EVALUATION CRITERIA

3.3.1 MANDATORY Technical Evaluation Criteria

Table 1: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	N/A		

3.3.2 Qualitative Technical Evaluation Criteria

Table 4: Qualitative Technical Evaluation Crite

	Qualitative Technical Evaluation Criteria	Reference to Technical Specification / Tender Returnable	Criteria Weighting(%)	Criteria Sub Weighting (%)
1	- Submit clear colour photographs confirming stockholding capability - Submit detailed Certificate of manufacture for the DN200/DN250 wedge gate valve as per scope of work. - Site visit to confirm	0 (0%) = No Valve on hand. 2 (40%) = 1 valve on hand. 5 (100%) = 2 or more valves readily available and confirmed.	60%	60%
2	Delivery lead time	0 (0%) = No Submission 2 (40%) = written commitment to deliver within 4 weeks 4(80%) = written commitment to deliver within 2 weeks 5 (100%) = written commitment to deliver within 7 days	40%	40%

CONTROLLED DISCLOSURE

4. TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Qualitative Criteria Number	TET 1	TET 2	TET 3
1.	X	X	X
2.	X	X	X

CONTROLLED DISCLOSURE

5. FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

1. Risks

1. Table 2: Acceptable Technical Risks

1. Risk	2. Description
1.	2. None.

N/A: risks will be addressed as they arise.

3. Table 3: Unacceptable Technical Risks

3. Risk	4. Description
5.	None.

N/A: risks will be addressed as they arise.

2. Exceptions / Conditions

4. Table 4: Acceptable Technical Exceptions / Conditions

6. Risk	7. Description
5.	N/A: risks will be addressed as they arise.

N/A: risks will be addressed as they arise.

6. Table 5: Unacceptable Technical Exceptions / Conditions

1. Risk	2. Description
3.	None.

8. N/A: risks will be addressed as they arise

CONTROLLED DISCLOSURE

6. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
	Boiler Senior Engineer
	Engineering Manager
	Technical Plant Manager
	Power station General manager

7. REVISIONS

Date	Rev.	Compiler	Remarks
August 2026	0		Technical Evaluation Strategy for supplying and delivering of 50% drain valves.
October 2026	1		Technical Evaluation Strategy for supplying and delivering of 50% drain valves.

8. DEVELOPMENT TEAM

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

None

9. ACKNOWLEDGEMENTS

Not Applicable.

CONTROLLED DISCLOSURE