Eskom	Strategy	CAMDEN POWER STATION

Title: **Tender Technical Evaluation Strategy for Turbine Welding Service Contract - Maintenance and Outage - 5 Years**

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Compiled by	Functional Responsibility	Authorised by
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TABLES

1. INTRODUCTION

To enhance the quality of the technical evaluation criteria for welding service contracts and ensure that service providers with relevant experience meet these standards, it is essential that the criteria are thoroughly reviewed by technical experts in the field of welding. Due to the challenge of including specialized technical experts in the cross-functional tender team, their insights may sometimes be overlooked. To address this, this document has been developed to ensure that the evaluation criteria for the welding service contract tender align with Eskom's requirements, thereby ensuring the highest quality of service.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document will serve as the technical evaluation strategy for the Camden Turbine Welding Service Contract - Maintenance and Outage (5 Year contract).

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

Tender evaluations for welding service contractors.

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] 240-106628253: Standard for Welding Requirements on Eskom Plant

2.2.2 Informative

[3] PER: Pressure Equipment Regulation

[4] SANS 347: SOUTH AFRICAN NATIONAL STANDARD - Categorization and conformity assessment criteria for all pressure equipment.

2.3 DEFINITIONS

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
CAT	Category
CV	Curriculum Vitae
IWE	International Welding Engineer
OHS	Occupational Health and Safety

Abbreviation	Description
PER	Pressure Equipment Regulation
PR. ENG.	Professional Engineer
QC	Quality Control
RP	Responsible Person
SANS	South African National Standard
TET	Technical Evaluation Team Member
WPQR	Welding Procedure Qualification Record
WPS	Welding Procedure Specification
WQR	Welder Qualification Record

2.5 ROLES AND RESPONSIBILITIES

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

OR

240-48929482: Tender Technical Evaluation Procedure for Transmission and Distribution

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

- AD-2000 (Arbeitsgemeinschaft Druckbehalter, ADM)
- ASME B31.12 (*Hydrogen Piping and Pipelines)*
- ASME B31.1 (*Power Piping, B31.3 – Process Piping)*
- ASME VIII (*Rules for construction of pressure vessels (divisions 1-3))*
- EN 13445 (*Unfired Pressure Vessels)*
- EN 13480 (*Metallic Industrial Piping)*
- ASME IX
- ISO 15614
- PD 5500 (Specification *for unfired fusion welded vessels)*
- ISO 9000 and 9001
- ISO 3834

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

Mandatory 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.

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

The minimum weighted final score (threshold) required from the qualitative criteria for a tender to be considered technically acceptable is **80%.**

A deviation from the recommended 70% threshold in the Generation Tender Technical Evaluation Procedure (240-168966153) is warranted, as the qualitative tender criteria are crucial and highly relevant to the scope of work. A strict 70% compliance may allow companies with technical deficiencies to pass the evaluation, potentially compromising the quality and integrity.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1 (RP)	Abel Rudman	Senior Engineer (IWE, Pr.Eng.)
TET 2	Morongwa Mogale	Chief Engineer (IWE, Pr.Eng.)
TET 3	Itani Manenzhe	Risk Engineer (IWE)

A fourth TET member was appointed but did not fulfil the assigned responsibilities and failed to attend the tender strategy compilation meeting. This contract falls under Transaction Type 2 in the Generation Tender Technical Evaluation Procedure, which requires a minimum of two evaluators for a complex scope of work.

The current evaluation team, consisting of three evaluators, meets these requirements. If the availability of another TET member is compromised during the evaluation of tender documents, the team can still proceed as long as at least two TET members remain available.

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

3.3.1 MANDATORY CRITERIA: M-1

	Mandatory Technical Criteria Description – Tender Returnable	Reference to Technical Specification	Motivation for use of Criteria
M-1	ISO 3834 Part 2 – Comprehensive certification (All Pages)	240-106628253 Standard for Welding Requirements on Eskom Plant	OHS-Act: PER – Performing repairs and modifications on regulated pressure equipment.
M-1.1	The ISO 3834 Part 2 – Comprehensive certification shall be accredited to all the following Product/Construction Standards: - AD-2000 (Arbeitsgemeinschaft Druckbehalter, ADM) - ASME B31.12 (*Hydrogen Piping and Pipelines)* - ASME B31.1 (*Power Piping, B31.3 – Process Piping)* - ASME VIII (*Rules for construction of pressure vessels (divisions 1-3))* - EN 13445 (*Unfired Pressure Vessels)* - EN 13480 (*Metallic Industrial Piping)* - PD 5500 (*Specification for unfired fusion welded vessels)*	OHS-Act: PER	Construction standards for vessel and piping systems at Camden.
M-1.2	The ISO 3834 Part 2 – Comprehensive certification shall as a minimum include the following welding standards: - ASME IX - ISO 15614	OHS-Act: PER	Welding standards applicable to the referenced construction standards at Camden.
M-1.3	The ISO 3834 Part 2 – Comprehensive certification shall include as a minimum the following two welding processes: - MMA (111) - TIG (141)	ASME IX, ISO 15614	Required welding processes.
M-1.4	Any first issue ISO 3834 Part 2 – Comprehensive certification obtained after June 2021 will not be considered.	Experience and ISO 3834 compliance	This requirement ensures that the company has successfully undergone and passed the ISO 3834 Part 2 recertification process.
M-1.5	Submit the ISO 9001 Certificate for the company tendering for the contract	ISO 9000 / 9001 and ISO 3834	ISO 9000 Defines a special process as a process where the conformity cannot be readily verified - welding

3.3.2 MANDATORY CRITERIA: M-2

	Mandatory Technical Criteria Description – Tender Returnable	**Reference to Technical Specification**	**Motivation for use of Criteria**
M-2	Evidence of welding work performed on SANS 347 CAT II or higher rated pressure vessels.	240-106628253 Standard for Welding Requirements on Eskom Plant	Repair and modification of SANS 347 CAT II or higher rated pressure equipment.
M-2.1	Submit a detailed description of the SANS 347 CAT II or higher-rated pressure vessel on which the company tendering for the contract has performed welding repair work. Clearly specify the date the work was completed and the client for whom the work was done. Include copies of the following documentation as proof that the work was carried out by the tendering company: - Client repair instructions or scope of work - Method statement prepared by the tendering company, signed by both the client and the authorized inspection authority. - Quality Control Plan, signed by the client and the authorized inspection authority. - Manufacturer's certificate, signed by the authorized inspection authority. - Photographs of the vessel Photographs of the vessel's nameplate	OHS-Act: PER SANS 347	Verify if the company tendering for the contract is familiar with the roles and responsibilities of all the parties evolved: Client, Manufacturer and AIA, with regards to PER compliance.
M-2.2	Work completed prior to June 2021 will not be considered. The procurement officer will verify the work by contacting the client for whom the work was completed during the evaluation process.	OHS-Act: PER SANS 347	This requirement ensures that the work was performed under the same ISO 3834 Part 2 – Comprehensive certification submitted for mandatory requirement M-1.

3.3.3 MANDATORY CRITERIA: M-3

	Mandatory Technical Criteria Description – Tender Returnable	**Reference to Technical Specification**	**Motivation for use of Criteria**
M-3	Welding and design experience record on SANS 347 Category II or higher-pressure equipment.	240-106628253 Standard for Welding Requirements on Eskom Plant	Repair and modification of SANS 347 CAT II or higher rated pressure equipment.
M-3.1	Submit a track record, from June 2021 to the present, detailing welding manufacturing and repair work performed on SANS 347 CAT-II or higher regulated pressure equipment. The track record must be presented in the following format: The company tendering for the contract must obtain Client letters from previous clients where the welding work was conducted, confirming the details of the work. These Client letters will only be accepted by the technical evaluation team if they meet the following criteria: - Confirm the scope of work executed by the company tendering for the contract. - Confirm that the equipment worked on by the company tendering for the contract is classified as SANS 347 CAT-II or higher. - Be issued on the Client's official company letterhead, which includes contact details for the client. - Include a client statement of satisfaction. If the Client does not express satisfaction with the work that was performed by the company tendering for the contract, the letter will be disregarded. Be signed by the responsible technical authority of the client.	-	The company that wishes to perform welding work on Eskom's regulated pressure equipment must have sufficient experience in the repair and modification of pressure vessels.
M-3.2	Work completed prior to June 2021 will not be considered. This requirement ensures that the work was performed under the same ISO 3834 Part 2 – Comprehensive certification submitted for mandatory requirement M-1. The tender evaluation team will verify the work by contacting the client for whom the work was completed during the evaluation process through the procurement officer.		Unacceptable technical risk
M-3.3	A minimum of three (3) valid and verified client letters for three (3) separate pressure vessels, or one verified client letter for three separate pressure vessels is required. During the evaluation process, the procurement officer will verify client letters. Any letters that cannot be verified or are denied by the client will be excluded from consideration.		Unacceptable technical risk

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

3.4.1 QUALITATIVE CRITERIA: Q1

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
Q-1	Proof of access to pressure equipment standards		OHS-Act: PER SANS 347	16%	
	1.1	AD-2000 (Arbeitsgemeinschaft Druckbehälter, ADM)			2%
	1.2	ASME B31.12 (Hydrogen Piping and Pipelines)			2%
	1.3	ASME B31.1 (Power Piping)			2%
	1.4	ASME B31.3 (Process Piping)			2%
	1.5	ASME VIII (Rules for the Construction of Pressure Vessels, Divisions 1-3)			2%
	1.6	EN 13445 (Unfired Pressure Vessels)			2%
	1.7	EN 13480 (Metallic Industrial Piping)			2%
	1.8	PD 5500 (Specification for Unfired Fusion Welded Vessels)			2%

*Scoring for **Q1** will follow the 0/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no proof or insufficient proof is submitted.*
- *A score of **5 (100% of the weighted value)** will be awarded if the contractor provides sufficient proof of legal access to the required standard.*

3.4.2 QUALITATIVE CRITERIA: Q2

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
Q-2	Welding procedure qualification records (WPQR)		OHS-Act: PER SANS 347 & 240-106628253 Standard for Welding Requirements on Eskom Plant	35%	
	2.1	¼" Schedule 40 tube, 316 Stainless Steel to 316 Stainless Steel, butt weld Welding Procedure to ISO 15614			5%
	2.2	2" SCH40 pipe, A106 to A106, butt weld Welding procedure to ASME IX			5%
	2.3	1.5" Schedule 80 pipe, 10CrMo910 to 13CrMo44 alloy steel, butt weld Welding Procedure to ISO 15614			5%
	2.4	8" Schedule 60 pipe, 304L to 316 Stainless Steel, butt weld Welding Procedure to ISO 15614			5%
	2.5	20 mm plate BS1501-151-430 to EN10028-2, 16Mo3, butt weld Welding Procedure to ISO 15614			5%
	2.6	12" Schedule XXS pipe EN10216-2, 15Mo3 to BS3602 HFS35, butt weld Welding Procedure to ISO 15614			5%
	2.7	ASME A516 Gr. 70, 12mm thick plate, butt weld Welding procedure to ASME IX			5%

*Scoring for **Q2** will follow the 0/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no, incorrect or irrelevant WPQR is submitted.*
- *A score of **5 (100% of the weighted value)** will be awarded if the contractor provides a valid (fully approved by IWE and AIA) and acceptable (pertaining to the required weld) WPQR.*

3.4.3 QUALITATIVE CRITERIA: Q3

	Welder qualifications		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
Q-3	Submit current and valid Welder Qualification Records (WQR) for welders on the following joints:		OHS-Act: PER SANS 347 & 240-106628253 Standard for Welding Requirements on Eskom Plant	14%	
	3.1	¼" Schedule 40 tube, 316 Stainless Steel to 316 Stainless Steel Welding Procedure to ISO 15614			2%
	3.2	2" SCH40 pipe, A106 to A106, butt weld Welding procedure to ASME IX			2%
	3.3	1.5" Schedule 80 pipe, 10CrMo910 to 13CrMo44 alloy steel butt weld Welding Procedure to ISO 15614			2%
	3.4	8" Schedule 60 pipe, 304L to 316 Stainless Steel butt weld Welding Procedure to ISO 15614			2%
	3.5	20 mm plate BS1501-151-430 to EN10028-2, 16Mo3 butt weld Welding Procedure to ISO 15614			2%
	3.6	12" Schedule XXS pipe EN10216-2, 15Mo3 to BS3602 HFS35 butt weld Welding Procedure to ISO 15614			2%
	3.7	ASME A516 Gr. 70, 12mm thick plate, butt weld Welding procedure to ASME IX			2%

*Scoring for **Q3** will follow the 0/4/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no, incorrect or irrelevant WQR is submitted.*
- *A score of **4 (80% of the weighted value)** will be given if correct or but outdated WQR is submitted.*
- *A score of **5 (100% of the weighted value)** will be awarded if the correct and valid WQR is submitted.*

3.4.4 QUALITATIVE CRITERIA: Q4

	ISO 3834 surveillance audit reports	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
Q-4	Provide the internal or external annual surveillance audit reports for ISO 3834 – Part 2 comprehensive.	ISO 9001	10%	10%

*Scoring for **Q4** will follow the 0/4/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no (0) annual surveillance audit reports are submitted for years 2021 to 2025.*
- *A score of **4 (80% of the weighted value)** will be given if one (1) annual surveillance audit reports are submitted for years 2021 to 2025.*
- *A score of **5 (100% of the weighted value)** will be given if two (2) annual surveillance audit reports are submitted for years 2021 to 2025.*

Justification for surveillance audits

*While ISO 3834 does not **mandate** internal audits, they are a good practice, especially if the company is also certified to **ISO 9001**. ISO 9001:2015 **Clause 9.2 (Internal Audit)** states that internal audits **shall** be conducted at planned intervals to verify compliance with the quality management system—including welding quality if integrated with ISO 3834.*

3.4.5 QUALITATIVE CRITERIA: Q5

	Welding coordinator qualifications	**Reference to Technical Specification / Tender Returnable**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
Q-5	Provide Proof of Qualification and Accreditation for Welding Coordinator used by the company tendering for the contract. International Welding Engineer (IWE) in accordance with IIW document IAB-252R2-14 or latest revision. OR International Welding Technologist (IWT) in accordance with IIW document IAB-252R2-14 or latest revision. Additionally, the welding coordinator must be ECSA Registered as a Professional Engineer or Technologist. Submit a valid ECSA certificate.	240-106628253 Standard for Welding Requirements on Eskom Plant	10%	10%

*Scoring for **Q5** will follow the 0/2/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no qualification or ECSA certificate is submitted.*
- *A score of **2 (40% of the weighted value)** will be given if only the qualification is submitted without the ECSA certification*
- *A score of **5 (100% of the weighted value)** will be given if both the qualification and ECSA certification is submitted.*

3.4.6 QUALITATIVE CRITERIA: Q6

	Welding supervisor qualifications	**Reference to Technical Specification / Tender Returnable**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
Q-6	Provide Proof of Qualification and Accreditation for Welding Supervisor which is employed by the company tendering for the contract: International Welding Specialist (IWS) in accordance with IIW document IAB-252R2-14 or latest revision. OR International Welding Practitioner (IWP) in accordance with IIW document IAB-252R2-14 or latest revision. Additionally, please include the Welding Supervisor's CV.	240-106628253 Standard for Welding Requirements on Eskom Plant	10%	10%

*Scoring for **Q6** will follow the 0/2/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no qualification or CV is submitted.*
- *A score of **2 (40% of the weighted value)** will be given if only the qualification is submitted without the CV*
- *A score of **5 (100% of the weighted value)** will be given if both the qualification and CV is submitted.*

3.4.7 QUALITATIVE CRITERIA: Q7

	Welding inspector qualifications	**Reference to Technical Specification / Tender Returnable**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
Q-7	Provide Proof of Qualification and Accreditation for Welding Inspector: SAIW Welding and Fabrication Inspector Level 2. OR IIW International Welding Inspector: Standard (IWI-S), OR IIW International Welding Inspector: Comprehensive (IWI-C).	240-106628253 Standard for Welding Requirements on Eskom Plant	5%	5%

*Scoring for **Q7** will follow the 0/5 principle:*

- *A score of **0 (0% of the weighted value)** will be given if no qualification submitted.*
- *A score of **5 (100% of the weighted value)** will be given if both the qualification is submitted.*

3.5 TET MEMBER RESPONSIBILITIES

Table 2: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
M-1 (M-1.1 – M-1.5)	X	X	X
M-2 (M-2.1 – M-2.2)	X	X	X
M-3 (M-3.1 – M-3.3)	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**
Q-1 (1.1 – 1.8)	X	X	X
Q-2 (2.1 – 2.7)	X	X	X
Q-3 (3.1 – 3.7)	X	X	X
Q-4	X	X	X
Q-5	X	X	X
Q-6	X	X	X
Q-7	X	X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 3: Acceptable Technical Risks

Risk	Description
1.	ISO 3834 Part 2 Comprehensive – Second Issue and higher
2.	3-year experience record for work done on more than three regulated vessels or piping systems, SANS 347 CAT II or higher.

Table 4: Unacceptable Technical Risks

Risk	Description
1.	ISO 3834 Part 2 Comprehensive Cortication – First issue only
2.	No ISO 9001 Certification
3.	3-year experience record for work done on less than three regulated vessels or piping systems, SANS 347 CAT II or higher.

3.6.2 Exceptions / Conditions

Table 5: Acceptable Technical Exceptions / Conditions

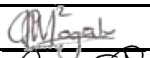
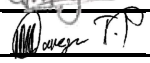
Risk	Description
1.	None

Table 6: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	ISO 3834 Part 2 Comprehensive Cortication – First issue only

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Morongwa Mogale	Chief Engineer (IWE, Pr.Eng.)	 13/02/2025
Itani Manenzhe	Engineer (IWE)	 13/02/2025

5. REVISIONS

Date	Rev.	Compiler	Remarks
11/02/2024	01	A. Rudman	First Issue

6. DEVELOPMENT TEAM

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

Abel Rudman

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7. ACKNOWLEDGEMENTS

N/A