

Title: **Tender Technical Evaluation
Strategy – Rubber Lining for
Demin Vessels**

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1. INTRODUCTION

Demin water is produced when all dissolved solids are removed from the water. These solids, in the form of cations and anions, are removed in the cation, anion and mixed bed vessels (i.e. a demin train) by the use of ion exchange resin through a process called demineralisation.

There are three (3) demineralised water trains at Camden Power Station, each consisting of a cation, an anion and a mixed bed vessel and associated flanges, manholes and pipes that are rubber lined.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the different aspects that will be evaluated and scored by the Technical Evaluation Team (TET) to complete the technical evaluation of the Camden Rubber Lining for Demin Vessels enquiry. The team members are listed and appointed in this document along with their responsibilities. The document also describes the acceptable and unacceptable risks and qualifications and/or conditions.

Once the Technical Evaluation Strategy is authorised no changes will be made to the evaluation criteria without appropriate authorisation.

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) member 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 the Camden Rubber Lining for Demin Vessels scope.

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] 32-1034: Eskom Procurement Policy
- [3] Contract Strategy

2.3 DEFINITIONS

2.3.1 Classification

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

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2.4 ABBREVIATIONS

| Abbreviation | Description |
|---------------------|-------------------------------------|
| CV | Curriculum Vitae |
| ECSA | Engineering Council of South Africa |
| TET | Technical Evaluation Team |
| | |

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

N/A

3. TENDER TECHNICAL EVALUATION 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%.

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Table 1: Qualitative Evaluation Criteria Scoring Table

| Score | (%) | Definition |
|--|-----|--|
| 5 | 100 | COMPLIANT <ul style="list-style-type: none"> 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; <ul style="list-style-type: none"> Acceptable technical risk(s) AND/OR; Acceptable exceptions AND/OR; Acceptable conditions. |
| 2 | 40 | NON-COMPLIANT <ul style="list-style-type: none"> 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. | | |

3.2 TET MEMBERS

Table 2: TET Members

| TET number | TET Member Name | Designation |
|------------|-----------------|--|
| TET 1 | Natasha Naidu | Auxiliary Plant System Engineer – Camden |
| TET 2 | Hassen Cassim | Snr Advisor Chemistry – RT&D |

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3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

| | KPI - CRITERIA EVALUATION INDICATOR | MINIMUM CRITERIA EVALUATION REQUIREMENTS | SOURCE |
|----------|--|---|---|
| 1 | Experience of contractor | Provide verifiable references and sources of evidence that the product supplier and applicator have successfully applied a rubber lining (internal) corrosion protection system to vessels equal to three times that as defined in the enquiry and Scope of Work (SOW) documents within the last 5 years. | The listing shall include formal signed off QCPs or release certificates and contact details for the listed reference projects. |
| 2 | Adherence to 240-106628253 - Standard for Welding Requirements on Eskom Plant | Provide a letter stating the Contractor's intent to comply to 240-106628253 - Standard for Welding Requirements on Eskom Plant (should welding be required) | Signed Letter |

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 4: Qualitative Technical Evaluation Criteria

| | KPI - CRITERIA EVALUATION INDICATOR | MINIMUM CRITERIA EVALUATION REQUIREMENTS | SOURCE | % | SCORE SCALE | | | |
|---|---|--|------------|-----|----------------|---|---|---|
| | | | | | | | | |
| | | | | | Floor | Kick in | Average | Ceiling |
| | | | | | 0=0% | 2=40% | 4=80% | 5=100% |
| 1 | Product Data Sheets for all products comprising the system i.e. rubber lining, adhesives, tack coats | <p>Company must provide datasheets for all products as per the scope.</p> <ul style="list-style-type: none"> • Adhesives, tack coats - Generic type, physical & mechanical properties. • Rubber Lining - Generic type, physical, chemical, service temperatures and chemical resistance limits as per special property (III & V) in table 3 SANS 1198. | Datasheets | 20% | None provided. | Data sheets provided only for Rubber Liner and (40%) information as per Criteria for Rubber Liner was provided. | All data sheets provided and (80%) information as per Criteria for Rubber Liner was provided. | All data sheets provided and All information as per Criteria were provided. |

| | KPI - CRITERIA EVALUATION INDICATOR | MINIMUM CRITERIA EVALUATION REQUIREMENTS | SOURCE | % | SCORE SCALE | | | |
|---|---|--|----------------------|-----|---------------------------------------|----------------------|-------------------------|---|
| | | | | | Floor | Kick in | Average | Ceiling |
| | | | | | 0=0% | 2=40% | 4=80% | 5=100% |
| 2 | Method statements for work | <p>Company must provide a detailed methodology and equipment list (number and capacity) required for effective;</p> <p>(a) surface preparation, (b) ventilation management (c) dust and debris removal. (d) surface preparation production rates per area (e) removal of spent abrasive grit, dust/debris (f) specified/required environmental conditions.</p> <p>• The precise sequence and breakdown of work areas/activities in order to clearly demonstrate experience and knowledge to avoid unnecessary delays i.e. rework time. The sequence to consider surface preparation production rates per area with) due consideration of time for removal of spent abrasive grit, dust/debris all in conjunction with the specified/required environmental conditions.</p> | Method statements | 30% | No method statement submission. | ≥3 steps missing. | 1 - 2 steps missing. | All application steps (a – f) provided. |

| | KPI - CRITERIA EVALUATION INDICATOR | MINIMUM CRITERIA EVALUATION REQUIREMENTS | SOURCE | % | SCORE SCALE | | | |
|---|--|---|--------------------|-----|---|--|--|---|
| | | | | | Floor | Kick in | Average | Ceiling |
| | | | | | 0=0% | 2=40% | 4=80% | 5=100% |
| 3 | Quality Control Plan | <ul style="list-style-type: none"> Shall detail all inspections and tests with the listing of the relevant local (SANS) or international standards as well as the required acceptance criteria. Inspections during lining application shall at least cover; <ul style="list-style-type: none"> (a) surface preparation, (b) environmental parameters, (c) rubber properties/batch certificate i.e. tensile strength, thickness, hardness, (d) adhesion, continuity and visual tests. | Detailed QCP | 20% | None provided. | High-level QCP missing: ≥3 Steps or tests i.e. (a – d) or ≥3 Missing standards or ≥3 Acceptance criteria. | QCP missing: 1 - 2 Steps or tests i.e. (a – d) or 1-2 Missing standards or 1-2 Acceptance criteria. | Detailed QCP indicating all steps, tests, standards, inspections criteria and interventions i.e. (a – d). |
| 4 | List of deviations from the Eskom specification | Company must provide a letter either stating no deviations or must state the deviations. | List of deviations | 15% | Detrimental, technically unacceptable Deviations or Exclusions. | | No definitive statement that there are any Deviations or Exclusions OR Acceptable Deviations or Exclusions. | A definitive statement that there are no Deviations or Exclusions. |

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| | KPI - CRITERIA EVALUATION INDICATOR | MINIMUM CRITERIA EVALUATION REQUIREMENTS | SOURCE | % | SCORE SCALE | | | |
|----------|---|---|-------------------------|-----|------------------|---------|-------------------------------|----------------------------------|
| | | | | | Floor | Kick in | Average | Ceiling |
| | | | | | 0=0% | 2=40% | 4=80% | 5=100% |
| 5 | Detailed Programme | Detailed program indicating the time that will take for entire projects. The programme to show all activities from site establishment to site destablishment. | Project Programme | 10% | None provided | | Some activities missing | All activities steps provided |
| 6 | Guarantee | Lining system shall be guaranteed jointly by the lining supplier and applicator. | Guarantee / Warranty | 5% | None provided | 6 year | 8 year | 10 year |

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

| Mandatory Criteria Number | TET 1 | TET 2 |
|------------------------------------|--------------|--------------|
| 1 | X | X |
| 2 | X | X |
| | | |
| Qualitative Criteria Number | TET 1 | TET 2 |
| 1 | X | X |
| 2 | X | X |
| 3 | X | X |
| 4 | X | X |
| 5 | X | X |
| 6 | X | X |

X – Mandatory

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

| Risk | Description |
|-------------|---------------------------------|
| 1. | Failure to provide spares lists |

Table 7: Unacceptable Technical Risks

| Risk | Description |
|-------------|--|
| 1. | No information on adherence to Eskom Standards provided. |

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

| Risk | Description |
|-------------|---|
| 1. | Professional Technologist is utilised and not Professional Engineer as deemed by ECSA |

Table 9: Unacceptable Technical Exceptions / Conditions

| Risk | Description |
|-------------|---|
| 1. | Failure to meet plant performance requirements in terms of reliability and availability |
| 2. | |

4. REVISIONS

| Date | Rev. | Compiler | Remarks |
|-------------|-------------|-----------------|----------------|
| March 2021 | 1 | N. Naidu | Original Issue |

5. DEVELOPMENT TEAM

- Hassen Cassim

6. ACKNOWLEDGEMENTS

N/A

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