

Title: **Tender Technical Evaluation
Strategy for the PF Burner and
Damper Repairs**

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1. INTRODUCTION

1.1 OBJECTIVE

The employer's objective is for the contractor to carry out inspections and repairs of defective components of the PF burners systems. These include the PF burners, secondary air ducting and dampers and core air ducting and dampers. The contractor's scope/responsibility is to carry out the required activities as per the outage scope of work.

1.2 SCOPE

The scope of work is the repair of PF Burners and dampers as provided prior to every outage.

1.2.1 Purpose

The purpose of this tender technical evaluation strategy is to highlight the required tender returnable for technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

1.2.2 Applicability

This document is applicable to Hendrina Power Station PF Burners on all operating units.

1.3 NORMATIVE/INFORMATIVE REFERENCES

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

1.3.1 Normative

- [1] 240-168966153: Generation Tender Technical Evaluation Procedure
- [2] 32-1034 Eskom Procurement and Supply Chain Management Procedure

1.3.2 Informative

- [3] None

1.4 DEFINITIONS

1.4.1 Classification

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

1.5 ABBREVIATIONS

| Abbreviation | Description |
|---------------------|----------------------------------|
| SANS | South African National Standards |

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| Abbreviation | Description |
|---------------------|---------------------------|
| TET | Technical Evaluation Team |
| | |

1.6 ROLES AND RESPONSIBILITIES

As per 32-1034 Eskom Procurement and Supply Chain Management Procedure & 240-168966153: Generation Tender Technical Evaluation Procedure

1.7 PROCESS FOR MONITORING

N/A

1.8 RELATED/SUPPORTING DOCUMENTS

None

2. TENDER TECHNICAL EVALUATION STRATEGY

2.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%.

2.2 TET MEMBERS

Table 1: TET Members

| TET number | TET Member Name | Designation |
|-------------------|------------------------|--------------------|
| | | |
| | | |
| | | |

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2.3 MANADATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

| | Mandatory Technical Criteria Description | Reference to Technical Specification / Tender Returnable | Motivation for use of Criteria |
|----|---|--|---|
| 1. | ISO 3834 Certification (Part 2) | Certified copy of a valid ISO 3834 certification (Part 2) | This is a quality management standard that defines all requirements for a quality weld, all companies that weld must have this certification. |
| 2. | BS EN ISO 15614-1 Welding Procedure | Certified copy of a steel welding procedure approved by a registered IWE or IWT. | This is a welding procedure that is approved by a welding engineer or the welding technologist that defines all the welding methods that will be employed when bonding the different material covered in the scope of work. |

2.4 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. | Ability of company to execute | | | 25 | |
| | 1.1 | Previous experience Working on PF Burners. | Copies of Contracts or purchase orders for maintenance and refurbishment of PF Burners. Two separate contracts must be provided. Total combined duration of services will be considered, whether purchase orders or contracts. Durations that don't match the SOW may be discarded or a more appropriate estimate made. | 0 (0%) No past services on PF burners 2 (25%) 1 service provided and Total Durations of previous PF burner contracts (2-3 years) 4 (75%) 2 service contract and Total Duration of previous PF burner contracts (5-8 years) 5 (100%) 2 service contract and Total Duration of previous PF burner contracts (7-10 years) | 100 |
| 2. | QCP from previous PF Burners services | | | 10 | |
| | 2.1 | – Relevant fully signed off QCP documents for the various components likely to be encountered. | <ul style="list-style-type: none"> – Copy of a signed off QCP by all relevant parties for a PF Burner. – Copy of a signed off QCP by all relevant parties for an air register. – Copy of a signed off QCP by all relevant parties for core air dampers. | 0 (0%) Non-responsive OR no fully signed QCPs. 2 (30%) Fully signed QCP for 1 type of components. 4 (70%) Fully signed QCP for 2 types of components. 5 (100%) Fully signed QCP for 3 or more types of components. | 100 |

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| | Qualitative Technical Criteria Description | Reference to Technical Specification / Tender Returnable | Criteria Weighting (%) | Criteria Sub Weighting (%) |
|-----------|---|--|---|----------------------------|
| | | | | |
| 3. | Work Execution Plan | | 40 | |
| | <p>3.1 A detailed methodology indicating how the scope of work will be carried out. The detailed methodology must cover inspections and repairs of the various components, and labour requirements (types and quantity) for activities.</p> | <ul style="list-style-type: none"> - The methodology should clearly address the scope that has been provided by the Employer and must include the following processes: <ul style="list-style-type: none"> - 1) Inspection, rigging and repairs. - 2) How PF erosion of metal surfaces and mechanical damage or fatigue due to heat will be dealt with during repairs. Consider scenarios where: <ol style="list-style-type: none"> 1. Localized erosion is evident, 2. Distributed erosion is evident, 3. Holes are evident, 4. Deformation and/or ovality is evident. 5. Evidence of chrome cast on component surface and/or patch work. 6. Tile(s) are missing and any of the defects mentioned above is/are evident. <p>The methodology should clearly cover the nature of defects stated above.</p> | <p>0 (0%) Non-responsive OR deliverable does not cover any requirements.</p> <p>2 (40%) Detailed plan covering 1 activity + detail of all required site personnel</p> <p>4 (80%) Detailed plan covering 3 activities + detail of all required site personnel</p> <p>5 (100%) Detailed plan covering 4 or more activities + detail of all required site personnel.</p> | 100 |

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| | Qualitative Technical Criteria Description | | Reference to Technical Specification / Tender Returnable | Criteria Weighting (%) | Criteria Sub Weighting (%) |
|-----------|--|------------------|--|--|----------------------------|
| | | | 3) How at least three specific components will be inspected and replaced at regular intervals or after failure. | | |
| 4. | Human Resources Verification | | | 25 | |
| | 4.1 | Site Manager (1) | <ul style="list-style-type: none"> - Engineering National Diploma in mechanical engineering or higher. - Project Management Certificate. - CV with 5 Years Managerial Experience and background in mechanical maintenance work. | 0 (0%) Non-responsive OR Engineering qualification less than National Diploma. 2 (40%) Engineering Qualification National Diploma or higher + managerial experience less than 5 years. 4 (80%) Engineering Qualification National Diploma or higher + Project Management Qualification + managerial experience less than 5 years. 5 (100%) Engineering Qualification National Diploma or higher + Project Management Qualification + managerial experience 5 years or more. | 30 |
| | 4.2 | Supervisor (2) | <ul style="list-style-type: none"> - Engineering National Diploma in mechanical engineering or higher qualification. - CV with 3 Years Supervisory Experience and background in | 0 (0%) Non-responsive OR Engineering qualification less than National Diploma. 2 (40%) Engineering Qualification National Diploma or higher with no experience. 4 (80%) Engineering Qualification National Diploma or higher + supervisory experience | 25 |

| | Qualitative Technical Criteria Description | | Reference to Technical Specification / Tender Returnable | Criteria Weighting (%) | Criteria Sub Weighting (%) |
|--|--|--|--|------------------------|----------------------------|
|--|--|--|--|------------------------|----------------------------|

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| | | | | | |
|--|-----|----------------------|--|--|----|
| | | | mechanical maintenance or PF burner related services, | less than 3 years in mechanical maintenance. 5 (100%) Engineering Qualification National Diploma or higher + supervisory experience 3 years or more with PF burner maintenances. | |
| | 4.3 | Welders (7) | <ul style="list-style-type: none"> - Grade 12 Certificate - Trade test as a welder & Certified copy of a valid ISO 9606 certification - Proven trade experience of 3 years in the power industry. | <p>0 (0%) Non-responsive or not applicable.</p> <p>2 (40%) All with Grade 12 + Any Welding experience.</p> <p>4 (80%) All Grade 12 + Welding certifications + Welding experience less than 3 years.</p> <p>5 (100%) All Grade 12 + Welding certifications + Welding experience greater than 3 years.</p> | 25 |
| | 4.4 | Quality Officers (1) | <ul style="list-style-type: none"> - N4 to N6 Mechanical Certificates - Trade test certificate - Level 2 Welding Certificate/ quality management /control certificates - CV with 5 years working experience on a similar plant in heavy industry | <p>0 (0%) non-responsive or not applicable.</p> <p>2 (40%) N4 to N6 Mechanical Certificate</p> <p>4 (80%) N4 to N6 Mechanical Certificates + Trade Test certificate + Level 2 Welding Certificate</p> <p>5 (100%) N4 to N6 Mechanical Certificates + Trade test certificate + Level 2 Welding Certificate + Milling Plant Working Experience of 5 years or more.</p> | 20 |
| | | | | TOTAL: 100 | |

***Number of Personnel to be as per the Work Execution Plan and adequate to cover the scope given.**

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TET Member Responsibilities

Table 5: TET Member Responsibilities

| Mandatory Criteria Number | TET 1 | TET 2 | TET 3 | TET 4 | TET 5 | TET 6 |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| N/A | | | | | | |
| Qualitative Criteria Number | TET 1 | TET 2 | TET 3 | TET 4 | TET 5 | TET 6 |
| 1.1 | X | X | X | | | |
| 2.1 | X | X | X | | | |
| 3.1 | X | X | X | | | |
| 3.2 | X | X | X | | | |
| 3.3 | X | X | X | | | |
| 4.1 | X | X | X | | | |
| 4.2 | X | X | X | | | |
| 4.3 | X | X | X | | | |
| 4.4 | X | X | X | | | |

2.5 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

2.5.1 Risks

Table 6: Acceptable Technical Risks

| Risk | Description |
|-------------|--------------------|
| 1. | None |

Table 7: Unacceptable Technical Risks

| Risk | Description |
|-------------|---|
| 1. | Contractor without adequate experience. |

2.5.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

| Risk | Description |
|-------------|--------------------|
| 1. | None |

Table 9: Unacceptable Technical Exceptions / Conditions

| Risk | Description |
|-------------|--------------------|
| 1. | None |
| 2. | |

3. AUTHORISATION

This document has been seen and accepted by:

| Name | Designation | Signature |
|------|-------------|-----------|
| | | |
| | | |
| | | |

4. REVISIONS

| Date | Rev. | Compiler | Remarks |
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