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Strategy for Burner contract**

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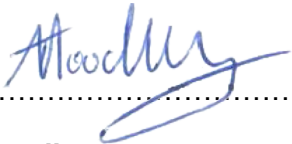
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1. INTRODUCTION

Tutuka Power Station outage philosophy requires all burners (24) per unit to be removed during General Overalls (GO) and Mini General Overalls (MGO), while only twelve (12) of the burners are required to be removed during Interim Repairs (IR) and two (2) during Inspection Outages (IN). The burners are extracted to allow for inspection and repairs due to no internal access to burner with unit on load. Burner removal, material forming, repair and installation work during outages is planned to be contracted out through open enquiry. This document serve as the strategy of technical evaluation on the tender returnable documentation to ensure Eskom requirements are met.

2. SUPPORTING CLAUSES

2.1 SCOPE

Strategy for technical evaluation on the Tutuka Burner maintenance contract tender returnable.

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) 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 Boiler engineering and all relevant stakeholders involved with the technical tender evaluation process for the Tutuka Burner maintenance contract.

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] ISO 9001 Quality Management Systems

2.2.2 Informative

N/A

2.3 DEFINITIONS

N/A

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
GO	General Overall
ID	Inside Diameter
IR	Interim Repair
ISO	International Organization for Standardization
ITP	Inspection and Test Plan (s)
MGO	Mini General Overall
PEI	Production Engineering Integration
PF	Pulverised Fuel
TET	Technical Evaluation Team
QCP	Quality Control Procedure
WPS	Welding Procedure Specification (s)

2.5 ROLES AND RESPONSIBILITIES

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

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

[1] 240-48929482: Tender Technical Evaluation Procedure

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 80%.

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3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Babs Surujlal	Outage Coordinator
TET 2	Hennie Coetzer	Senior Advisor Welding
TET 3	Riana Nieuwoudt	Senior Engineer
TET 4	Bongani Phiri	Artisan Mechanical
TET 5	Tregan Moodley	System Engineer: Millings Plant and Coal Burners

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3.3 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.	Certified copy of company ISO3834 part 2 certificate.	<u>Returnable:</u> Certified copy of specified company certificate.	Compliance to Standard for Welding Requirements on Eskom Plant (240-106628253).
2.	Qualified WPS for Group 1.1 to Group 1.1 (Mild steel $\text{ReH} \leq 275 \text{ N/mm}^2$) up to 10 mm thick compliant to Standard for Welding Requirements on Eskom Plant (240-106628253).	<u>Returnable:</u> Certified copy welding procedure qualification with welding procedure attached for specified material.	Compliance to Standard for Welding Requirements on Eskom Plant (240-106628253).
3.	Qualified WPS for Group 8.2 to Group 8.2 (Austenitic Stainless steel with $\text{Cr} > 19\%$) up to 10 mm thick compliant to Standard for Welding Requirements on Eskom Plant (240-106628253).	<u>Returnable:</u> Certified copy welding procedure qualification with welding procedure attached for specified material.	Compliance to Standard for Welding Requirements on Eskom Plant (240-106628253).
4.	Qualified d WPS Group 1.1 (Mild steel $\text{ReH} \leq 275 \text{ N/mm}^2$) to Group 8.2 (Austenitic Stainless steel with $\text{Cr} > 19\%$) steel plate up to 10 mm thick compliant to Standard for Welding Requirements on Eskom Plant (240-106628253).	<u>Returnable:</u> Certified copy welding procedure qualification with welding procedure attached for specified material.	Compliance to Standard for Welding Requirements on Eskom Plant (240-106628253).
5.	Qualified WPS for Group 1.2 to Group 1.2 (Mild steel $275 \text{ N/mm}^2 < \text{ReH} \leq 360 \text{ N/mm}^2$) up to 10 mm thick compliant to Standard for Welding Requirements on Eskom Plant (240-106628253).	<u>Returnable:</u> Certified copy welding procedure qualification with welding procedure attached for specified material.	Compliance to Standard for Welding Requirements on Eskom Plant (240-106628253).

3.4 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.	Verifiable Reference list of Outage welding repair work on sheet metal and ducting within Eskom and/or oil refinery industry in the last 5 years. Feedback from the reference list will be used during evaluation.		<u>Returnable:</u> List of projects completed meeting the specified criteria with verifiable references.	10	-
2.	Company staff experience and qualifications for maintenance work done for Eskom Power Plant and/or oil refinery industry work done.			5	-
	2.1.	Management level experience and qualifications (certified copy of certificate) for maintenance work done for Eskom Power Plant and/or oil refinery industry work done.	<u>Returnable:</u> List of personnel on Management level with relevant projects completed. Certified copies of qualifications.	-	2
	2.2.	Supervisor level experience and qualifications (certified copy of certificate) for maintenance work done for Eskom Power Plant and/or oil refinery industry work done.	<u>Returnable:</u> List of personnel on Supervisor level with relevant projects completed. Certified copies of qualifications.	-	2
	2.3.	Artisan level experience and qualifications (certified copy of certificate) for maintenance work done for Eskom Power Plant and/or oil refinery industry work done.	<u>Returnable:</u> List of personnel on Artisan level with relevant projects completed. Certified copies of qualifications.	-	1
3.	List of staff members who qualified to WPS as provided in Mandatory Technical Evaluation Criteria 2, 3 & 4.		<u>Returnable:</u> List of qualified welders for 3 WPS as per Mandatory Technical Evaluation Criteria 2, 3 & 4.	5	-
4.	Work procedure and ITP for sheet metal rolling and forming compliant to Burner Manufacturing Standard (240-106027729).			15	-

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	4.1.	Rolling of 16Mo3 and 310 Stainless steel up to 10mm thick and ID of 600 mm.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified materials.	-	5
	4.2.	Rolling of 16Mo3 and 310 Stainless steel up to 10mm thick and ID of 945 mm.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified materials.	-	5
	4.3.	Forming of 16Mo3 and 310 Stainless steel up to 10mm thick.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified materials.	-	5
5.	Submit gasket installation work procedure and ITP.			10	-
	5.1.	PF pipe round to square inlet to PF burner.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified gasket area.	-	2.5
	5.2.	Core air tube to PF burner.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified gasket area.	-	2.5
	5.3.	PF burner inspection doors.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified gasket area.	-	2.5

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	5.4.	PF burner to Secondary air duct.	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for specified gasket area.	-	2.5
6.	Total duration (in hours) for one burner removal and stripping into scroll, core air tube, PF burner, core air duct and PF swirler, including handrail cutting.		<u>Returnable:</u> Plan with durations for completing specified work.	15	-
7.	Total duration (in hours) for one core air tube replacement of sleeve, tube and tip.		<u>Returnable:</u> Plan with durations for completing specified work.	10	-
8.	Total duration (in hours) for one PF burner replacement of tip, centralising pins, PF tube, bottom casing and liner casing.		<u>Returnable:</u> Plan with durations for completing specified work.	10	-
9.	PF Burner wear liners			5	-
	9.1.	Total duration for removal	<u>Returnable:</u> Plan with durations for completing specified work.	-	1
	9.2.	Work procedure and ITP	<u>Specification:</u> Burner Manufacturing Standard (240-106027729). <u>Returnable:</u> Work procedure and ITP for installing PF burner wear liners.	-	3
	9.3.	Total duration for installation	<u>Returnable:</u> Plan with durations for completing specified work.	-	1
10.	Total duration (in hours) for one burner installation consisting of scroll, core air tube, PF burner, core air duct and PF swirler, including handrail welding.		<u>Returnable:</u> Plan with durations for completing specified work.	15	-
				TOTAL: 100	

Table 4: 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 <ul style="list-style-type: none"> Meet technical requirement(s) with; 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
<p>Note 1: The scoring table does not allow for scoring of 1 and 3.</p> <p>Note 2: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.</p>		

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3.5 TET 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
4.	X	X	X	X	X
5.	X	X	X	X	X
Qualitative 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
4.	X	X	X	X	X
5.	X	X	X	X	X
6.	X	X	X	X	X
7.	X	X	X	X	X
8.	X	X	X	X	X
9.	X	X	X	X	X
10.	X	X	X	X	X

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3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	Qualitative 3: Work procedures and ITP submitted for both ID's and both steel types complying with Burner Manufacturing Standard (240-106027729).
2.	Qualitative 4: All 4 component gasket installation work procedure and ITP submitted.
3.	Qualitative 5: Duration for removing and stripping of 1 burner is less than 16 hours.
4.	Qualitative 6: Core air tube repairs of 1 burner is less than 48 hours.
5.	Qualitative 7: PF burner repairs of 1 burner is less than 72 hours.
6.	Qualitative 8: PF burner liner removal and replacement of 1 burner work procedure submitted and duration less than 48 hours.
7.	Qualitative 9: Duration for installing of 1 burner is less than 36 hours.

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Qualitative 3: No work procedure and/or ITP submitted for specified material and dimension for rolling and forming.
2.	Qualitative 4: No work procedure and/or ITP submitted for gasket installation.
3.	Qualitative 5: Duration for removing and stripping of 1 burner is greater than 24 hours.
4.	Qualitative 6: Core air tube repairs of 1 burner is greater than 72 hours.
5.	Qualitative 7: PF burner repairs is of 1 burner greater than 96 hours.
6.	Qualitative 8: No work procedure and/or ITP submitted. Work procedure submitted with duration greater than 60 hours.
7.	Qualitative 9: Duration for installing of 1 burner is greater than 48 hours.

3.6.2 Exceptions / Conditions**Table 8: Acceptable Technical Exceptions / Conditions**

Risk	Description
1.	Qualitative 1: Proof was submitted of actively performing project the last 5 years on sheet metal welding and/or ducting repair outage work on Eskom Power Plants and/or oil refinery plant maintenance shut downs.
2.	Qualitative 2: All staff level of the company has relevant Eskom Power Plant Outage work and/or oil refinery plant maintenance shut downs experience and certified copies of qualifications are submitted.
3.	Qualitative 3: List of staff members who qualified to WPS as provided in Mandatory Technical Evaluation Criteria 2, 3 & 4.

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Qualitative 1: Less than 3 verifiable references for project completed Eskom Power Plant Outage and/or oil refinery plant maintenance shut downs.
2.	Qualitative 2: No relevant experience on Eskom Power Plant Outage and/or oil refinery plant maintenance shut downs work or no certified copies of qualifications are submitted.
3.	Qualitative 3: No list of staff members who qualified to WPS as provided in Mandatory Technical Evaluation Criteria 2, 3 & 4 submitted.

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Mikateko Matlole	Manager Maintenance
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5. REVISIONS

Date	Rev.	Compiler	Remarks
February 2018	1	P Oberholzer	New Document
July 2018	2	P Oberholzer	TET members changed due to resignation. 240-48929482: Tender Technical Evaluation Procedure was reviewed in May 2018. 240-53716746: Tender Technical Evaluation Report Template was revised.
July 2021	3	T Moodley	Mandatory fields changed to specific material groups TET members updated

6. DEVELOPMENT TEAM

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

- Babs Surujlal
- Hennie Coetzer
- Lettie Botha
- Nokwazi Mncwangi
- Phil Hoop
- Phillip Oberholzer
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7. ACKNOWLEDGEMENTS

N/A

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