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1. INTRODUCTION

Kriel Power Station (PS) treats Usuthu Scheme raw water at the Water Treatment Plant (WTP) to produce demineralised water used as boiler feed water. The water passes through a Water Pre-treatment Plant (WPTP) that removes suspended solids and organics. The WPTP mainly consists of three (3) clarifiers, twelve (12) sandfilters, three (3) backwash pumps, two (2) post backwash pumps, three (3) air scour blowers and one (1) flash mixer chamber. The clarifiers operate in parallel that act to remove suspended solids and the larger organic carbons and the expected outlet turbidity from the clarifiers is 1 NTU. There are sandfilters that act to remove the finer particles and the expected outlet turbidity is 0.2 NTU.

The WPTP has not been refurbished for the entirety of the station life. Due to age of the plant, corrosion, the integrity of the pipes and structures and the condition of the valves, the plant's reliability and efficiency has been compromised.

The objective of this project is to provide for a reliable, maintainable, and safe operation of the pretreatment plant without jeopardising the filtered water production and quality.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document provides the tender technical evaluation strategy for all the activities necessary for the provision of a fully functional pretreatment plant that meets the Employer's requirements.

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 shall apply to the Kriel Power Station Pretreatment Plant Refurbishment Project and Kriel Power Station.

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] 32-1034: Eskom Procurement Policy

[3] EAP0357: Kriel Power Station Pre-treatment Plant Refurbishment Scope of Work

2.2.2 Informative

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
C&I	Control and Instrumentation
CV	Curriculum Vitae
ECSA	Engineering Council of South Africa
EDWL	Engineering Design Work Lead
LDE	Lead Discipline Engineer
LPS	Low Pressure Services
Pr. Eng.	Professional Engineer
Pr. Tech.	Professional Engineering Technologist
TET	Technical Evaluation Team
WTP	Water Treatment Plant
LPS	Low Pressure Services
WPQR	Welding Procedure Qualification Record
WPS	Welding Procedure Specification
WQR	Welding Qualification Record

2.5 ROLES AND RESPONSIBILITIES

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

2.6 PROCESS FOR MONITORING

Not applicable.

2.7 RELATED/SUPPORTING DOCUMENTS

Not applicable.

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%.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Jerushan Pillay	Senior Engineer
TET 2	Sumayyah Sulliman	Chief Engineer
TET 3	Noko Pheta	Senior Advisor
TET 4	Morongwa Mogale	Chief Engineer
TET 5	Devilliers Moll	Senior Engineer

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

There are no mandatory technical evaluation criteria.

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA SCORING MATRIX

The qualitative criteria will be scored according to the scoring matrix set out in the Tender Engineering Evaluation Procedure **Error! Reference source not found.**.

Table 2 shows the scoring matrix that will be used.

Table 2: Qualitative Technical Evaluation Criteria Scoring Matrix

Score	%	Definition
5	**100**	**COMPLIANT** • 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; • Acceptable technical risk(s) AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions.
2	**40**	**NON-COMPLIANT** • 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.		

3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria

Item		Requirement	Reference to Technical Specification / Tender Returnable	Criteria Weighting	Evaluation Scoring Breakdown			
				(%)	0	2	4	5
1. General	1.1	The tenderer to indicate their level of experience in the construction and refurbishment of filtered water production plants. Illustrate past work experience on gravity sandfilter and clarifier system refurbishment. Tenderer to submit three (3) verifiable references of similar projects to indicate their relevant experience with the filtered water production construction and refurbishment, completed within the last 10 years. The tenderer must submit the following for verification purposes: 1. Contact details of company the submitted work was performed for. 2. High-level Scope of Work for the work that proof was submitted for.	NEC document Part 3: Scope of Work, Section 3	30	No submission or Insufficient Information	Tenderer submits one (1) verifiable reference.	Tenderer submits two (2) verifiable references, with one (1) for gravity sandfilter works And one (1) for clarifier system works.	Tenderer submits three (3) verifiable references, with at least one (1) for gravity sandfilter works. And at least one (1) for clarifier system works
	1.2	Proof of ECSA registration for Professional Engineer. CV to indicate experience with design, construction and refurbishment of projects involving piping, pumps.	NEC document Part 3: Scope of Work, Section 3	3.5	No submission or Insufficient Information		Tenderer submits ECSA registration Pr. Tech/Pr. Eng. for any engineering discipline. OR Tenderer submits CV indicating work experience in construction and refurbishment of	Tenderer submits ECSA registration Pr. Tech/Pr. Eng. For Civil Engineer. & Tenderer submits CV indicating work experience in construction, refurbishment and/or of projects involving piping,

							projects involving piping, pumps.	pumps and vessels.
	1.3	The tenderer submits a method statement indicating compliance to the scope of work. The method statement must include reference to the sandfilter and clarifier works, as well as include a project schedule indicating the works to be performed.	NEC document Part 3: Scope of Work, Section 3	17.5	No submission or Insufficient Information	High level method statement (Missing either sandfilter or clarifier works)	The tenderer submits method statement indicating compliance to scope of work must include (sandfilter and clarifier works)	The tenderer submits method statement indicating compliance to scope of work (must include sandfilter and clarifier works) And Project Schedule indicating the order of the works to be performed.
2. Corrosion Protection	2.1	The contractor shall provide a verifiable reference list of previous coating projects performed since 2021, involving submersed internal coatings (3 references). The following shall be noted with proof for each reference provided: 1. Submit fully signed QCP for each reference or submit fully signed completion certificate. 2. Each proof of submission must include the contact details of the individuals for verification purposes.	NEC document Part 3: Scope of Work, Section 3	12	No submission	1 reference	2 references	3 references
	2.2	Corrosion protection INSTALLATION METHOD STATEMENTS/INSTALLATION PLAN for internal and external coating. Application method statements relevant to specifications RTD/MAT/22/104 and RTD/MAT/22/106. The method statements to include the following:	NEC document Part 3: Scope of Work, Section 3	6	No submission or Insufficient Information	Method statements provided with 2 or more application steps missing	Method statements provided with one application step missing	Method statements provided with all application steps

		(1) Full name of the products to be used. (2) Grease decontamination and washing (3) Substrate surface preparation. (4) Coating application methodology. (5) Environmental Considerations. (6) Inspection and Testing.						
	2.3	Corrosion protection INSTALLATION METHOD STATEMENTS/INSTALLATION PLAN for galvanising. Application method statements relevant to specification RTD/MAT/22/105.The method statements to include the following: (1) Full name of the products to be used. (2) Grease decontamination and washing (3) Substrate surface preparation. (4) Coating application methodology. (5) Environmental Considerations. (6) Inspection and Testing.	NEC document Part 3: Scope of Work, Section 3	6	No submission or Insufficient Information	Method statements provided with 2 or more application steps missing	Method statements provided with one application step missing	Method statements provided with all application steps
	2.4	Typical QCP for a similar application as per the scope of work to be submitted with all installation steps and testing, inspections with criteria and required interventions required to monitor (1) Substrate preparation. (2) Primer application. (3) Intermediate coat application. (4) Final Coat application (5) Testing requirements (6) Environmental conditions acceptance.	NEC document Part 3: Scope of Work, Section 3	4	No submission or Insufficient Information	QCP provided but missing info and not according to Eskom spec.	QCP provided but missing some of the steps in the method statement	Detailed QCP indicating all steps, tests, standards, inspections criteria and interventions i.e. (1-6).
	2.5	List of deviations or exclusions from the corrosion protection specification. If there are none then there shall be a definitive written statement to such effect. This mentioned list of deviations or	NEC document Part 3: Scope of Work, Section 3	2	Detrimental, technically unacceptable Deviations or Exclusions.		Deviations that will not impact the performance of corrosion protection.	A definitive statement that there are no Deviations or

		definitive written statement shall be used as part of the contract.						Exclusions/ 100% compliance.
3. Welding	3.1	The tenderer indicates on a letter that all welding and inspection is to comply with the Standard for Welding Requirements on Eskom Plant. Tenderer is to submit proof of five (5) trade test certificates for welders that will be undertaking the welding.	NEC document Part 3: Scope of Work, Section 3	3	No submission or Insufficient Information	Tenderer supplies a signed letter indicating compliance to the Eskom Standard for Welding Requirements on Eskom Plant. OR Tenderer supplies 20% of the qualifications of personnel that will be undertaking the welding.	Tenderer supplies a signed letter indicating compliance to the Eskom Standard for Welding Requirements on Eskom Plant. & Tenderer supplies 80% of the qualifications of personnel that will be undertaking the welding.	Tenderer supplies a signed letter indicating compliance to the Eskom Standard for Welding Requirements on Eskom Plant. & Tenderer supplies all the qualifications of personnel that will be undertaking the welding.
	3.2	The Contractor must submit to the Employer for acceptance, a WPS for carbon steel materials group 1.2 only (not group 11.1) as per BS EN 15608 standard. The butt weld joint with a qualified thickness range of 3 - 14mm. A wider range can be qualified as long as the thickness range of 3-14mm is covered as a minimum. WPS must be approved by IWE/IWT. The WPS must be qualified in accordance with BS EN ISO15614-1.	Qualified WPS As per section 3.7 in the SOW	5	No submission or Insufficient Information or incorrect material group	Submitted Welding documentation does not cover all the essential variables (<14mm) and it is not approved by an IWT/IWE	Submitted Welding documentation does not cover all the essential variables (<14mm) and it is approved by IWT/IWE	Submitted document covers all the essential variables and it is approved by an IWT/IWE
	3.3	The Contractor submits to the Employer for acceptance, a WPQR that supports the submitted WPS. The WPQR with a qualified test piece for materials carbon steel materials group 1.2 only as per BS EN 15608 standard. With a butt weld joint test piece that will qualify a thickness range of 3 - 14mm. A wider range can be qualified as long as the thickness range of 3-14mm is covered as a minimum. WPQR must be approved by IWE/IWT. The WPQR must be accordance with BS	Qualified WPQR As per section 3.7 in the SOW	5	No submission or Insufficient Information or incorrect material group	Submitted Welding documentation does not cover all the essential variables and it is not approved by an IWT/IWE. No supporting lab results or insufficient results not compliant to code requirements.	Submitted Welding documentation does not covers all the essential variables and it is approved by IWT/IWE and is supported by the code required lab test results.	Submitted document covers all the essential variables and it is approved by an IWT/IWE. All required test results as per code submitted.

		EN ISO15614-1.All test results from the test laboratory must be submitted with the WPQR.						
	3.4	The Contractor must submit a WQR that can weld the submitted WPS. The WQR must be approved as per the requirements of ISO 9606-1 and adhere to Eskom Welding Standard.	Qualified WQR As per section 3.7 in the SOW	3	No submission or Insufficient Information	Submitted Welding documentation does not cover all the essential variables and it is not approved by an IWT/IWE or the relevant approver as the health and safety standards	Submitted Welding documentation does not covers all the essential variables and it is approved by IWT/IWE or the relevant approver as the health and safety standards	Submitted document covers all the essential variables and it is approved by an IWT/IWE or the relevant approver as the health and safety standards
	3.5	The contractor must submit an ISO 3834-3 or ISO 3834-2 certification (all pages of the certificate must be submitted)	Qualified WQR As per section 3.7 in the SOW	3	No submission or Insufficient Information	Submitted ISO 3834-4 certificate	Submitted ISO 3834-3 or ISO 3834-2 certificate without all pages listing all the essential variables and certifications covered by the certificate	Submitted the ISO 3834-3 or ISO 3834-2 certificate with all pages listing all the required essential variables and certifications.

3.6 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities for the Qualitative Evaluation Stage

Qualitative Criteria Number	TET 1 - JP	TET 2 - NP	TET 3 - SS	TET 4 - MM	TET 5 - DM
1.1	X		X		
1.2	X				X
1.3	X		X		
2.1	X	X	X		
2.2	X	X	X		
2.3	X	X	X		
2.4	X	X	X		
2.5	X	X	X		
3.1				X	X
3.2				X	X
3.3				X	X
3.4				X	X
3.5				X	X

3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.7.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	None.

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Providing only one (1) or no proof of experience for execution of works.
2.	Providing high-level method statement for execution of works.
3.	Not providing signed QCPs for works previously performed corrosion protection for.
4.	Not providing deviation and exclusion list for corrosion protection.
5.	Not providing qualifications for welding works.
6.	No approvals by IWE/IWT for welding documentation.
7.	Submission of ISO 3834-4 or lower certification.

3.7.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	None.

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	None.

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Jerushan Pillay	Senior Engineer	
Sumayyah Sulliman	Chief Engineer	
Noko Pheta	Senior Advisor	
Morongwa Mogale	Chief Engineer	21.08.2025
Devilliers Moll	Senior Engineer	

5. REVISIONS

Date	Rev.	Compiler	Remarks
March 2023	0.1	J Pillay	Draft Document
April 2024	1	J Pillay	Final Document for authorisation
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August 2024	2	J Pillay	Final Document for authorisation

6. DEVELOPMENT TEAM

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

- Jerushan Pillay
- Sumayyah Sulliman
- Noko Pheta
- Morongwa Mogale
- Devilliers Moll

7. ACKNOWLEDGEMENTS

Not applicable.