| Eskom | Strategy | Engineering |
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| Title: | **Tender Technical Evaluation Strategy for the for supply and delivery of scale and corrosion prevention chemicals for Matla Power Station Ash water systems, Auxiliary Cooling water systems and Main Cooling Water systems on an as and when required basis for a period of 5 years** | Unique Identifier: | **31435** |
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Centre

| Compiled by | Functional Responsibility | Authorised by |
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| Date: 2024-01-30 | Date: 31/01/2024 | Date: 14/02/2024 |

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# TABLES

# 1. INTRODUCTION

This document is aimed at setting the standard technical evaluation criteria to be used when evaluating the tender submissions for the supply and delivery of scale and corrosion prevention chemicals for Matla Power Station.

The following chemical are required on the different systems:

1 x scale inhibitor chemical for the mentioned Ash Water Systems

1 x corrosion inhibitor chemical for the mentioned Closed Demin Water Auxiliary Cooling Water Systems

1 x scale inhibitor chemical for the mentioned Open Potable Water Auxiliary Cooling Water Systems

1 x Biocide chemical for the mentioned Closed Demin Water Auxiliary Cooling Water Systems

1 x Biocide chemical for the mentioned Open Potable Water Auxiliary Cooling Water Systems

1 x anti-foam chemical to prevent foaming in the Auxiliary Cooling Water Systems after biocide dosing

1 x crystal modifier chemical for the mentioned Main Cooling Water Systems

# 2. SUPPORTING CLAUSES

## 2.1 SCOPE

This document covers the technical evaluation process and criteria for the supply and delivery of the (7) required chemicals at Matla Power Station.

### 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

This document is applicable to Matla 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] 32-1034 – Eskom procurement and supply chain management

[2] 240-48929482: Tender Technical Evaluation Procedure

[3] 240-53716712: Tender Technical Evaluation Results Form Template

[4] 240-53716726: Tender Technical Evaluation Scoring Form Template

### 2.2.2 Informative

[5] Scope of Work for supply and delivery of scale and corrosion prevention chemicals for Matla Power Station Ash water systems, Auxiliary Cooling water systems and Main Cooling Water systems on an as and when required basis for a period of 5 years – MEP 0501318

## 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 |
|---|---|
| OEM | Original Equipment Manufacture |
| TET | Technical Evaluation team |

## 2.5 ROLES AND RESPONSIBILITIES

Roles and responsibilities are as per 240-48929482: Tender Technical Evaluation Procedure.

## 2.6 PROCESS FOR MONITORING

N/A

## 2.7 RELATED/SUPPORTING DOCUMENTS

Refer to Section 2.2

# 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

## 3.3 TET MEMBERS

**Table 1: TET Members**

| TET number | TET Member Name | Designation |
|---|---|---|
| TET 1 | Bertie Venter | Chemical Engineer |
| TET 2 | Maria Majake | Senior Technician Chemistry |

## 3.4 MANADATORY TECHNICAL EVALUATION CRITERIA

Table 2 defines all the Mandatory Evaluation Criteria to be used as well as the reference to the specification and motivation for Criteria use. These criteria will not be scored. Each tender will be assessed on a yes/no basis.

**Table 2: Mandatory Technical Evaluation Criteria**

| No. | Mandatory Technical Criteria Description | Reference to Technical Specification / Tender Returnable | Motivation for use of Criteria |
|---|---|---|---|
| 1. | All (7) required chemicals should be proposed and provided by the tenderer. | SOW MEP-051318 Bill of Material points (1) – (7)/ 16-point Material Specification and Data Sheets to be provided for all (7) required chemicals which will include a South African contact number for each chemical. | The tenderer should be able to supply all (7) chemicals in order to meet the SOW requirements. |

## 3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

During the tender evaluations the following table shall be used by the TET members to score each criterion on a scale of 0 to 5 as per Table 3.

**Table 3: Qualitative Technical Evaluation Criteria**

| Score | (%) | Definition |
|---|---|---|
| 5 | 100 | **COMPLIANT**<br>• Meet technical requirement(s) AND;<br>• No foreseen technical risk(s) in meeting technical requirements. |
| 4 | 80 | **COMPLIANT WITH ASSOCIATED QUALIFICATIONS**<br>Meet technical requirement(s) with;<br>• Acceptable technical risk(s) AND/OR;<br>• Acceptable exceptions AND/OR;<br>• Acceptable conditions. |
| 2 | 40 | **NON-COMPLIANT**<br>• Does not meet technical requirement(s) AND/OR;<br>• Unacceptable technical risk(s) AND/OR;<br>• Unacceptable exceptions AND/OR;<br>• Unacceptable conditions. |
| 0 | 0 | **TOTALLY DEFICIENT OR NON-RESPONSIVE** |
| **Note 1:** The scoring table does not allow for scoring of 1 and 3.<br>**Note 2**: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy. | | |

Table 4 indicated the qualitative technical evaluation criteria that shall be used by the technical tender evaluation team. Appendix A contains the detailed mandatory and qualitative evaluation criteria scoring sheets.

**Table 4: Qualitative Technical Evaluation Criteria**

| | Qualitative Technical Criteria Description | Reference to Technical Specification/Tender Returnable | Criteria Weighting (%) | Criteria Sub Weighting (%) |
|---|---|---|---|---|
| 1. | Previous work experience report | SOW MEP-051307 Section 2.14/ Previous reports on successful work completed in other process plants for similar services in (1) scale prevention, (2) corrosion prevention and (3) microbiological fouling prevention. The previous work should be for systems with capacity and process configuration similar to Matla Power Station as described in the SOW Section 1.1. The reports should contain references with South African contact details. | 15% | - |
| 2. | Certificate of analysis (COA) | SOW MEP-051307 Section 2.7/ Letter on company letterhead stating that COA will be supplied for all proposed chemicals with each delivery.<br>Example of a previous COA's issued should be provided. | 5% | - |
| 3. | Online monitoring devices | SOW MEP-051318 Section 2.3/ Letter on company letterhead listing the recommended online monitoring systems, for the monitoring of (1) scale formation (main cooling water system and open auxiliary cooling water system), (2) corrosion rate (closed auxiliary cooling water system) and (3) monitoring of sessile bacteria proliferation and biofilm formation (open and closed auxiliary cooling water systems). The recommended online monitoring equipment listed in the letter should be accompanied by Product Data Sheets. | 10% | - |
| 4. | Auxiliary Cooling Microbiological Treatment efficacy (Demin and Potable) | SOW MEP-051318 Section 2.2/ A Letter on a company letterhead stating that (1) Bacterial counts will be monitored on a monthly basis for the Auxiliary Cooling Water Systems in order to monitor the efficacy of biocide used and (2) a report will be generated and distributed with the findings on biocide efficacy testing. | 10% | - |
| 5. | Report on predictive dosing model for all the mentioned systems as per water samples collected at Matla Power Station | SOW MEP-051318 Section 2.4/ Report stating the following:<br>(1) Proposed treatment chemical/s (as per MSDS supplied)<br>(2) Active ingredient and concentration of the proposed chemical/s (as per the MSDS supplied)<br>(3) Recommended dosing rate and concentration of proposed chemical<br>(4) Treatment cost in R/ML | 15% | - |

| | | | | |
|---|---|---|---|---|
| | | (5) Method on monitoring and controlling the effectiveness of the proposed chemical/s as well as method on how residual will be monitored within the system.<br><br>The (5) points should be indicated for all (7) required chemicals on the different systems, namely: (1) Ash Water System Scale Inhibitor, (2) Closed Demin Water Auxiliary Cooling Water System Corrosion Inhibitor, (3) Open Potable Water Auxiliary Cooling Water System Sc01ale Inhibitor, (4) Closed Demin Water Auxiliary Cooling Water system Biocide, (5) Open Potable Water Auxiliary Cooling Water System Biocide, (6) Open Potable Water Auxiliary Cooling Water Anti-foam, (7) Main Cooling Water System Crystal Modifier | | |
| 6. | Lead times for chemical delivery | SOW MEP-051318 Section 2.13/ A Letter on a company letterhead stating the lead time for each of the (7) proposed chemicals. | 10% | - |
| 7. | Technical support | SOW MEP-051307 Section 2.11&2.12&2.16/ Letter on a company letterhead stating commitment to the following: (1) Periodic site visits as per SOW Section 2.11, (2) Plant inspections during outage opportunities as per SOW Section 2.12, (3) Training and awareness to Matla personnel as per SOW Section 2.16. | 15% | - |
| 8. | Draft proposal | SOW MEP-051307 Bill of Materials/ Draft proposal should be provided to indicate all the required dosing equipment (tanks, pumps, piping, valves, monitoring equipment) that should be installed as well as the general layout of all the (7) required dosing chemicals. | 20% | - |
| | | | **TOTAL: 100** | |

## 3.6 TET MEMBER RESPONSIBILITIES

**Table 5: TET Member Responsibilities**

| Mandatory Criteria Number | TET 1 | TET 2 | TET 3 | TET 4 | TET 5 | TET 6 | TET 7 | TET n |
|---|---|---|---|---|---|---|---|---|
| 1 | X | X | | | | | | |
| **Qualitative Criteria Number** | **TET 1** | **TET 2** | **TET 3** | **TET 4** | **TET 5** | **TET 6** | **TET 7** | **TET n** |
| 1 | X | X | | | | | | |
| 2 | X | X | | | | | | |
| 3 | X | X | | | | | | |
| 4 | X | X | | | | | | |
| 5 | X | X | | | | | | |
| 6 | X | X | | | | | | |
| 7 | X | X | | | | | | |
| 8 | X | X | | | | | | |

## 3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

### 3.7.1 Risks

**Table 6: Acceptable Technical Risks**

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

**Table 7: Unacceptable Technical Risks**

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

### 3.7.2 Exceptions / Conditions

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

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

**Table 9: Unacceptable Technical Exceptions / Conditions**

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

## 4. AUTHORISATION

This document has been seen and accepted by:

| Name | Designation | Signature |
|---|---|---|
| Bertie Venter | Chemical Engineer | |
| Maria Majake | Senior Technician Chemistry | M.M. Majake |

## 5. REVISIONS

| Date | Rev. | Compiler | Remarks |
|---|---|---|---|
| August 2023 | 0 | Bertie Venter | Draft document. |
| August 2023 | 1 | Bertie Venter | Signed document. |

## 6. DEVELOPMENT TEAM

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

Bertie Venter

## 7. ACKNOWLEDGEMENTS

None.

## APPENDIX A: TECHNICAL EVALUATION CRITERIA

Eskom

**GATEKEEPERS: PART A**

**MATLA POWER STATION: SCALE AND CORROSION PREVENTION CHEMICALS**

| | Yes | | No | Required (Mandatory) - PLEASE ATTACH THE FOLLOWING: |
|---|---|---|---|---|
| All (7) required chemicals should be proposed and provided by the tenderer. | | | | 16-point Material Specification and Data Sheets to be provided for all (7) required chemicals which will include a South African contact number for each chemical. |

**NOTE: NON-CONFORMANCE TO ANYONE OF THE ABOVE REQUIREMENTS DISQUALIFY THE RESPECTIVE CONTRACTOR. ALL BLOCKS MUST BE TICKED YES IN ORDER TO PROCEED TO PART B. IF PROOF NOT ATTACHED AS REQUIRED ON COLUMN L, THE CONTRACTOR WILL BE SCORED "NO".**

**PART B: QUALITATIVE TECHNICAL EVALUATION CRITERIA : Supply and delivery of scale and corrosion prevention chemicals for Matla Power Station Ash water systems, Auxiliary Cooling water systems and Main Cooling Water systems on an as and when required basis for a period of 5 years basis.**

| Nr | Technical Requirements | Source | % | 0 | 2 | 4 | 5 | Score |
|---|---|---|---|---|---|---|---|---|
| 1 | Previous work experience report | Previous experience reports on successful work completed in other process plants for similar services in:<br>(1) scale prevention,<br>(2) corrosion prevention and<br>(3) microbiological fouling prevention.<br>The previous work should be for systems with capacity and process configuration similar to Matla Power Station as described in the SOW Section 1.1. The reports should contain references with South African contact details. makeup water streams of varying quality and quality control through blowdowns) | 15% | Previous reports provided but not for all (3) required areas OR Previous reports provided which contains invalid references OR No previous reports provided | Previous reports provided on successful work completed for non-similar services in all (3) required areas with valid references. | Previous reports provided on successful work completed for semi-similar services (capacity and configuration) in all (3) required areas with valid references. | Previous reports provided on successful work completed for similar services (capacity and configuration) in all (3) required areas with valid references. | |
| 2 | Certificate of analysis (COA) | Letter on company letterhead stating that COA will be supplied with each delivery. Example(s) of a previous COA issued should be provided | 5% | COA example not provided and letter that COA's will be issued for all deliveries are not provided | COA example not provided, but letter that COA's will be issued for all deliveries are not provided | One COA example provided as well as letter that COA's will be issued for all deliveries | More than one COA example provided as well as letter that COA's will be issued for all deliveries | |
| 3 | Online monitoring devices | Letter on company letterhead listing the recommended online monitoring systems, for the monitoring of:<br>(1) scale formation (main cooling water system and open auxiliary cooling water system),<br>(2) corrosion rate (closed auxiliary cooling water system) and<br>(3) monitoring of sessile bacteria proliferation and biofilm formation (open and closed auxiliary cooling water systems). The recommended online monitoring equipment listed in the letter should be accompanied by Product Data Sheets | 10% | No letter provided OR Letter provided with no Product Data Sheets for the proposed monitoring systems OR Only the Product Data Sheets provided for the proposed monitoring system, but no letter provided | Letter provided (1) of the (3) online monitoring systems listed as well as the Product Data Sheet for the proposed monitoring system. | Letter provided (2) of the (3) online monitoring systems listed as well as the Product Data Sheets for each proposed monitoring system. | Letter provided with all (3) online monitoring systems listed as well as the Product Data Sheets for each proposed monitoring system. | |
| 4 | Auxiliary Cooling Microbiological Treatment efficacy | A Letter on a company letterhead stating that<br>(1) Bacterial counts will be monitored on a monthly basis for the Auxiliary Cooling Water Systems in order to monitor the efficacy of biocide used and<br>(2) a report will be generated and distributed with the findings on biocide efficacy testing | 10% | No Letter provided | Letter provided with no commitment | Letter provided with commitment to only (1) of the (2) requirements | Letter provided with commitment to both requirements | |
| 5 | Report on predictive dosing model for all the mentioned systems as per water samples collected at Matla Power Station | Report stating the following:<br>(1) Proposed treatment chemical/s (as per MSDS supplied)<br>(2) Active ingredient and concentration of the proposed chemical/s (as per the MSDS supplied)<br>(3) Recommended dosing rate and concentration of proposed chemical<br>(4) Treatment cost in R/ML<br>(5) Method on monitoring and controlling the effectiveness of the proposed chemical/s as well as method on how residual will be monitored within the system.<br><br>The (5) points should be indicated for all (7) required chemicals on the different systems, namely:<br>(1) Ash Water System Scale Inhibitor,<br>(2) Closed Demin Water Auxiliary Cooling Water System Corrosion Inhibitor,<br>(3) Open Potable Water Auxiliary Cooling Water System Sc01ale Inhibitor,<br>(4) Closed Demin Water Auxiliary Cooling Water system Biocide,<br>(5) Open Potable Water Auxiliary Cooling Water System Biocide,<br>(6) Open Potable Water Auxiliary Cooling Water Anti-foam,<br>(7) Main Cooling Water System Crystal Modifier | 15% | Detailed report provided stating (<2) of the (5) requirements for each of the (7) required chemicals to be dosed OR Report not provided OR Report provided but not for all of the (7) required chemicals | Detailed report provided stating (3) of the (5) requirements for each of the (7) required chemicals to be dosed | Detailed report provided stating (4) of the (5) requirements for each of the (7) required chemicals to be dosed | Detailed report provided stating all (5) requirements for each of the (7) required chemicals to be dosed | |
| 6 | Lead times for chemical delivery | A Letter on a company letterhead stating the lead time for each of the (7) proposed chemicals | 10% | No letter provided OR Letter provided which indicates a lead time of more than 5 days for any of the (7) required chemicals OR Letter provided with lead times indicated but not for all of the (7) proposed chemicals | Letter provided and lead time is indicated as 5 days for each of the (7) proposed chemicals | Letter provided and lead time is indicated as 4 days for each of the (7) proposed chemicals | Letter provided and lead time is indicated as less or equal to 3 days for each of the (7) proposed chemicals | |
| 7 | Technical support | Letter on a company letterhead stating commitment to the following:<br>(1) Periodic site visits as per SOW Section 2.11,<br>(2) Plant inspections during outage opportunities as per SOW Section 2.12,<br>(3) Training and awareness to Matla personnel as per SOW Section 2.16. | 15% | No Letter provided OR Letter provided with no commitment stated | Letter provided with commitment to only (1) of the (3) technical requirements | Letter provided with commitment to only (2) of the (3) technical requirements | Letter provided with commitment to all (3) technical requirements | |
| 8 | Draft proposal | Draft proposal should be provided to indicate all the required dosing equipment (tanks, pumps, piping, valves, monitoring equipment) that should be installed as well as the general layout of all the (7) required dosing chemicals. | 20% | Draft proposal not provided OR Detailed draft proposal provided, but for less than (5) of the (7) required dosing chemicals | Detailed draft proposal provided which indicates the required dosing equipment and general layout of only (5) of the (7) required dosing chemicals OR Draft proposal provided for (5) to (7) of the required dosing chemicals, but not detailed as it is not showing the required dosing equipment and/or the general plant layout for the systems mentioned | Detailed draft proposal provided which indicates the required dosing equipment and general layout of only (6) of the (7) required dosing chemicals | Detailed draft proposal provided which indicates the required dosing equipment and general layout of all the (7) required dosing chemicals | |
| | | | 100% | | | | | |
| | | | | | | | TOTAL SCORE | ≥70% |