

DESIGN, MANUFACTURE, SUPPLY AND INSTALLATION OF A NEW SUPERHEATER TUBE BANK ON ECONOMISER No.1A FOR SULPHURIC ACID A PLANT

Tender no: **FTP /25/LK**

Cost Code:

Revision¹: 1. see legend at bottom of page

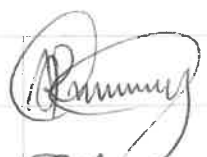
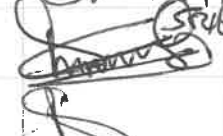
Revised date: 27 August 2025

NAME	TITLE	Empl. No	SIGNATURE	DATE
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COMPILED – RECOMMENDATION

Siphiwe M Ntuli	Maintenance Engineer	503497		27.08.2025
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APPROVAL TO PROCEED

Sifiso R Majola	Senior Manager Maintenance	15480		27/08/2025
Precious Buthelezi	Senior Manager Production: Sulphuric	22171		02/09/2025
Charles Mavuso	Senior Manager, SHREQ	504688		02/09/2025
Sam Mbuyazi	General Manager, Acid Division	500441		02/09/2025

¹ Revision Legend: 0.n = Draft, 1= Final version
Thus first draft = 0.1, second draft = 0.2, etc, and final approved = 1.0
Should the final be revised for whatever reason the revision would be 1.1 etc.

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Section A: INVITE AND TENDER INSTRUCTIONS

A.1 Invitation to tender

A.1.1 Tenderers are invited to submit a tender in accordance with this Tender Document.

The Works consists of the **Design, Manufacture, and Installation of Economizer 1A Superheater Tube Bundle For Sulphuric Acid A Plant.**

The tender Instructions are to be found in **Section A.**

The Contract Works Forms of Tender is stipulated in **Section B.**

The detailed Scope of Work and Specifications are to be found in **Section C.**

The Conditions of Contract are stipulated by **Foskor (Pty) Ltd, Procurement Department.**

A.1.2 At the time of tendering, any queries and/or doubts within the scope, specifications or drawings shall be referred to:

Designation

Buyer: Tenders and Contracts

For the attention of

Lisu Khumalo

Telephone

035 902 3115

Fax

035 797 3941

Cell no

Email

A.2 Return of Tender Documents

A.2.1 One copy of this document, duly completed and signed by the Tenderer, shall be delivered in a plain sealed envelope, distinctly marked as follows:

TENDER

Tender No.

FTP /25/LK

Contract Title:

Design, Manufacture, and Installation of a Superheater & Economizer No.1 For Sulphuric Acid A&B Plant.

Closing Date & Time:

**The Manager Procurement
FOSKOR LIMITED
21 John Ross Parkway
Richards Bay**

A.2.2 Tenders shall be placed in the **Tender Box at Foskor Richards Bay Main Administration Reception** no later than **12h00 noon** on the closing date.

A.2.3 A tender sent by fax shall not be accepted.

- In case of Tenderers not being local, and not being in a position to hand deliver tender documents to the above-mentioned location, Tenderers may use an approved document courier for the purpose of delivering the tender document to Foskop (Pty) Ltd. This would be subject to auditable proof of dispatch from the Courier Company (including time and date of dispatch).
- Such proof shall be faxed and confirmed as addressed to Superintendent: Tenders and Contracts, FOSKOR (PTY) LTD, 21 John Ross Parkway, Richards Bay, facsimile number as indicated under item A.1.3 before the closing time and date of the tender.
- Foskop shall take no responsibility for lost courier documents – prior to opening of tenders - and onus rests on Tenderer to keep duplicate of Tender Submission.
- In this case the sealed envelope shall remain addressed as per paragraph A.2.1, and shall be placed in a sealed courier bag with the following street address delivery instructions:

FOSKOR (PTY) LIMITED - (TENDER BOX)
21 John Ross Parkway
Richards Bay
3900

- A.2.4 Tenders will not be opened in public and under no circumstances will the price(s) at which any Contract was awarded be divulged to any person.
- A.2.5 In the event that the Tenderer did not submit a tender or if his tender was unsuccessful, the Tenderer shall return the Enquiry Document and Drawings within **14 days** to the **Superintendent: Tenders** and **Contracts**.

A.3 Site Inspection

An official Site inspection shall be held at the **Foskop, Richards Bay** site in order for the Tenderer to fully acquaint himself with prevailing site and works conditions. In so doing you are to ensure that you fully understand the context and extent of the works (refer B.5 – Site Inspection Certificate).

Date of Site Visit

Time of Site Visit

Meeting Venue

From : To :

Report at Main Security Entrance

Please wear the following protective clothing:

Overalls (Acid Proof),
 Hard Hat
 Safety Shoes
 Safety Glasses
 Hearing protection
 Gloves

Yes

Yes

Yes

Yes

Yes

Yes

IMPORTANT

- Please note that a Safety Induction is MANDATORY and all Tenderers to allow for at least 2 hours before the Site Meeting start, to complete the induction.

A.4 Examination and Completion of Documents

- A.4.1 The Tenderer shall examine all documents forming part of the tender and submit his tender accordingly. All drawings, addendums, annexures received with the tender documents must be returned with your company stamp and/or signature, as a comprehensive part of your tender submission. Failure to do so may result in disqualification from tender. Tender in accordance with this format and submit documents as specified.
- A.4.2 The Sections of this document shall not be separated in any way, nor shall any pages be detached therefrom.
- A.4.3 The Tenderers submission is to include all Financial and Contractual details and be signed (by authorized person) and/or company-stamped together with tender submission.
- A.4.3.1 Cost Breakdown of the Works as per the Cost Schedule
- A.4.3.2 Initial Project Program of Works, Work Methodology, and Cash Flow (structured similarly to payment terms)
- A.4.3.3 Schedule of Similar Contracts Undertaken

A.5 Contract Documents Priority

The eventual Contract shall comprise the documents as stated in this tender document, your Tender submission by which you agree and the Foskor (Pty) Ltd Terms and Conditions, which shall be interpreted in accordance with the order of priority stated in the said Conditions.

A.6 Alterations by Tenderer

- A.6.1 Should the Tenderer propose any departures or modifications from the Conditions of Contract, Specifications, or to qualify his tender in any way, he/she shall set out his/her proposals clearly in the covering letter attached to this Tender with reference to the particular section of the document, failing which the tender will be deemed to be unqualified. Any proposed technical departures from Foskor (Pty) Ltd.'s Requirements or Specifications shall only be considered if submitted in writing together with a detailed motivation for such departures.
- A.6.2 The Tenderer shall include in respect of each proposed alteration the following:
- a) Reason for proposed exception.
 - b) Suggested re-wording.
 - c) Any effect on the tender price.
 - c) Any effect on the execution of the scope of supply.
 - d) Any effect on Foskor's overall program objectives.

If any of the above information is not supplied, the Tender may be regarded as non-compliant.

A.7 General

- A.7.1 Foskop (Pty) Ltd reserves the right to adjust arithmetical or obvious errors in the tender. Such adjustments made by Foskop (Pty) Ltd will be communicated to the tenderer prior to the acceptance of his tender.
- A.7.2 The tenderer (whether his tender is accepted or not) shall treat the details of the tender as private and confidential and no copies shall be made without the permission of Foskop (Pty) Ltd.
- A.7.3 Foskop (Pty) Ltd is not bound to accept the lowest or any other tender it may receive, nor to assign a reason for the rejection or acceptance of any tender, and Foskop (Pty) Ltd has the right, after tenders are opened, and before a Contract is awarded, to enter into negotiations and discussions with one or more tenderers short-listed on a price, programme or technical basis, with a view to the clarification, improvement or amendment of any particular tender.
- A.7.4 All tenderers tender at their own risk and Foskop (Pty) Ltd is not bound to accept any tender and under no circumstances whatsoever will be responsible for any costs incurred by any tenderer in compiling or submitting the tender.
- A.7.5 Furthermore, Foskop reserves the right to accept only a part of the tender, with due communication and agreement of the tenderer.
- A.7.6 The tenderer is required to submit a 'bona fide' tender, intended to be competitive and not to fix or adjust the amount of the tender by or under or in accordance with any agreement or arrangement with any third party. The tenderer is also obliged to ensure that it has not and will not at any time before the hour and date for the lodging of this tender do any of the following acts:
- Communicate to any person the amount or approximate amount of the proposed tender except where the disclosure, in confidence, of the amount of this tender was necessary for the preparation of the tender.
 - Enter into any agreement or arrangement with any third party that shall disqualify from or that Foskop shall refrain from using.
 - Commit any act or omission that would be contrary to the Maintenance and Promotion of Competition Act 96 of 1979 and notices and regulations published in terms of that Act,

Section B: FORMS OF TENDER TO BE SUBMITTED

B.1 Schedule of Rates or Summary of Bill of Quantities

From Bill of Quantities – if applicable or →		qty	x rate =	ZAR
1.0	SUB TOTALS:			
1.00	Preliminary & General			
1.01	Design and Manufacturing			
1.02	Installation and Commissioning			
	Sub Totals Sum (Excluding VAT)			
	Add: VAT		15%	

Total Tender Sum (Including VAT)

- B1.1 In the event of their being any obvious errors of pricing, extensions or additions in the priced Cost Schedule attached, we agree to their being corrected, and the contract amount altered accordingly.
- B1.2 We further undertake that this tender cannot be withdrawn or retracted for **90** (ninety) days from the closing date.
- B1.3 Notwithstanding that, this tender is submitted by invitation, it is clearly understood and agreed that there is no obligation upon Foskor to accept the lowest or any tender.
- B1.4 The tendered prices are fixed and firm for the duration of the contract, and unless otherwise agreed to in writing a 10% retention (held for 18 months, unless otherwise specified) shall be deducted on all payments made for the Liability Period as defined in B.2. This clause also refers to 'Handover' as specified in **B 2.1**
- B1.5 Unless or until a formal agreement is prepared and signed, this tender, shall serve as your written acceptance and constitute a binding contract between Foskor and Yourself.

Amount In Words:

Signed aton.....

Signature
For and on behalf of the Tenderer(duly authorized)

.....
Company Stamp

B.2 Initial Project Programme of Works, Work Methodology and Cash Flow

(This is a workable schedule and the Contractor is in no way obligated to these dates. An obligatory final programme will only be required once the tender is awarded)

Commencement Date (Guide: 6 weeks from tender close date)

Within 7 days from receipt of Purchase order.

Completion of Works/ Final Handover (Guide: Project duration)

16 weeks from receipt of Purchase order.

TO BE SUBMITTED WITH THIS TENDER

The Tenderer shall submit with this Tender:

- 1 CIDB 6ME Registration Certificate
- 2 ECSA Registered Pr. Engineer/Technologist
- 3 SANAS accredited AIA
- 4 Registered SAIW Welding and Fabrication Inspector Level 2

- 5 SACPMP Registered Safety Officer
- 6 ISO3834 Certification
- 7 Method Statement for Manufacturing (Workshop)
- 8 Method Statement for Installation (On Foskor Site)
- 9 Initial programme (Bar Chart/Gantt Chart)
- 10 Quality Control Plan
- 11 Reference Letter (Similar Contract Undertaken)
- 12 ISO 9001 Accreditation

OTHER IMPORTANT NOTES

- **'Defects Liability Period'** shall be that period in force for Foskor to call upon the Contractor/Consultant to rectify at no cost to Foskor (Pty) Ltd any defects of workmanship, quality or practice; and shall remain in force **in parallel with the Retention Period** and any other duration agreed to.
- The Tenderer is to list and motivate any deviations in terms of Project Program and/or time allowed and this is subject to approval by the Foskor (Pty) Ltd Engineer.
- It would be expected, in the event of critical work and/or work behind programme/schedule, should such be attributable to the Contractor, to make up the time and work and complete the work at no cost to Foskor (Pty) Ltd.
- The Tenderer shall within **7 (seven)** days of contract award submit a final detailed work methodology and programme, and the final work methodology shall be verified and approved by Foskor (Pty) Ltd.
- The Tenderer is welcome to propose alternatives work methodology or approach to work, that may be of mutual benefit. This would be submitted in the form of an Alternative (clearly marked), however the Tenderer is **still to submit a tender in the form specified** in this tender.
- The Tenderer shall submit a Work Breakdown Structure (WBS) and compile a programme (use MS Projects).
- If the Tenderer is partially or wholly responsible for the design or design drawings according to which construction is specified, any corrections to design/design drawings shall remain for the Tenderers account for a period of 6 months (or as otherwise agreed) after project completion. This is to ensure that poor design or inaccuracy of designs is rectified at no cost to Foskor.

B.2.1 Project Completion and Handover; Retention

Unless otherwise agreed, Project Completion (handover), shall be deemed to be from date of Foskor issuing a Project Complete/Handover Certificate to the Contractor. This should be expected to be received within seven (7) days from date of receipt by Foskor of the complete Data Pack in its acceptably certifiable form (refer Section C of this document, **Quality Control**). Once the project has reached completion as defined by this scope, onus rests on the Tenderer to request from Foskor a Project Complete/Handover Certificate, which receipt shall define and signify the commencement of Retention Period.

B.2.2 Initial Program to be Submitted

The interim and final project completion dates, as indicated in the above table should be used as the guideline for the Tenderer to compile the detail project schedule.

After the contract agreement is accepted (by signature of an agreement or acceptance of a Purchase Order) the dates shall be fixed and shall be applicable to the penalty clause as per agreement.

ATTACH GANT CHART AND/OR BAR CHART TO THIS PAGE

B.3 Schedule of Key Personnel on the Project

The Tenderer shall:

1. Complete schedule below concerning the Key Personnel on the project, indicating also if the person is employed by the tenderer, a sub-contractor or temporary employed person.
2. Submit a project organogram showing the relationships and authority.

Key Personnel	Name and Surname	Full/Part Time on site, off-site?	Employed, Sub- Contractor or Temp?	Years Related Experience
Project Manager				
Site Manager				
Quality Assurance				
Document Control				
Safety Officer				

These persons shall not be substituted without prior consultation with and approval from Foskor (Pty) Ltd. Failure to submit this information at the time of tender could lead to disqualification of the tender.

B.4 Schedule of Similar Contract Undertaken

Please provide a list of work done on contract of which the Scope of Works that are similar to the one described in this document (or attach references).

Completed Month, Year	Description	Client Name	Contact Person And Details	Value

Section C: SCOPE OF WORKS

C.1. Background, Present Situation and Proposed Solution

C.1.1 Background and Present Situation

The sulphuric acid A plant Economizer/Superheater 1A was installed in 2007. The unit consists of two major banks of tubes i.e the bottom bank is the initial heat exchanging and the top bank is the superheater. The duty of the economizer/superheater is to raise the boiler feed water temperature to 108° C on the economizer bank and 158° C on the superheater bank whilst also regulating the desired acid temperature produced in the final acid tower. This is achieved by passing the hot SO₂ gas exiting the 4th pass of the converter through the external finned tube surface of the economizer/superheater before it reaches the final acid tower whilst the boiler feed water is fed through the tubes. This allows for the heat energy to be transferred into the water. The hot boiler feed water is essential for the steam economy as it allows the boiler to generate steam at optimal efficiency.

The bottom tube bank of the economizer/superheater 1A was replaced in 2024 after it had reached the end of it's operational life. However the top superheater bank was not replaced. The superheater bank has equally reached the end of it's operational life with the finns all worn out and eroded away from the tubes. The loss of the finns reduces the heat transfer area drastically resulting in the loss of efficiency for this unit. The resultant effect of the lost efficiency is the lower steam to fuel production and higher acid temperatures.

C.1.2 Proposed Solution: Reason for this Tender

The proposed solution is to perform the complete design, manufacturing, installation, and commissioning of the Economizer 1A Superheater tube bank for the sulphuric A Plant. This will restore the efficiency of the unit back to it's original design and improve both the steam production and in regulating the acid temperature in the final acid tower.

C.1.3 Project Requirements

The main purpose of this scope of work is for the complete design, manufacturing, supply, installation and commissioning of 1x Economizer No.1A Superheater Tube Bank for sulphuric A Plant.

- Methodology
- Design calculations
- Manufacture/Fabrication drawings
- Quality control plan
- Manufacturing schedule
- Transporting to Foskor Richards Bay
- Installation schedule

- Installation and Commissioning tests
- Handover documentation

C.1.4 Scope of Work – General

The scope of work for the design, manufacture, supply and installation of Economizer 1A Superheater Tube Bank shall consist but not limited to the following:

Design and Drawings

- Appoint own ECSA registered Pr Engineer
- Produce and submit Design Calculations to Foskor
- Obtain Foskor Approval of Design and Drawings.
- Produce and submit complete fabrication drawings of all components.
- Take any necessary measurements prior any fabrication.

Manufacturing

- Appoint own SANAS accredited AIA
- Prepare and submit detailed work methodology
- Prepare and submit a detailed manufacturing schedule
- Prepare and submit a detailed quality control plan
- Obtain Foskor approval of the quality control plan
- Procure necessary material based on Design and Drawings approved by Foskor and Third Party.
- Submit all manufacture drawings for Foskor approval before commencing with construction.
- Manufacture the Economizer 1A Superheater Tube Bank.
- Perform a shop pressure test
- Ensure AIA involvement during the manufacturing phase.
- As a minimum the Nameplate shall consists of the following information:
 - Name of Manufacturer
 - Country of Origin
 - Year of Manufacture
 - Manufacturer's serial number
 - Name, number & date of the Standard/Code of design
 - Design gauge pressure in Pascal
 - Maximum Permissible Operating Pressure in Pascal
 - Operating Temperature
 - Shop Hydro test gauge Pressure in Pascal
 - Site Hydro test gauge Pressure in Pascal
 - Capacity in cubic meters
 - Mark of an Approved Inspection Authority (when required)

Installation and Commissioning

- Prepare and submit methodology for installation
- Prepare and submit quality control plan for installation
- Prepare and submit a safety file for the installation at Foskor Richards Bay

- Prepare and submit to Foskop a road survey study for the transportation of the superheater bank
- Supply own transportation for delivery to Foskop Richards Bay
- Make provision for all necessary personnel resources and tools for the cutting and removal of existing tube bank.
- Make provision for all necessary personnel resources and tools for the installation of the new tube bank
- Ensure involvement of Foskop appointed AIA during Installation.
- Dispose one old superheater at Foskop designated area.
- The Contractor to ensure to comply to all Foskop Safety Procedures.
- The Contractor to ensure availability of Safety Officer/Safety Representative during onsite Installation.
- Clean and clear working area during work and upon completion.
- Prepare and provide all blanks and fittings required for the field pressure test
- Perform Pre-Commissioning Testing in the presence of the Foskop appointed AIA.
- Produce and Submit the Certificate of Conformity (CoC) states that the product meets the required standards and specifications.

Final Handover.

- Final handover of equipment will be done after pressure test at Foskop site.
- Prepare and submit a complete Data Book, containing Quality Control Plans, Welding Procedures and Non-Destructive Testing and Reports, Inspection reports and Certificates, Material Certificates and as built drawings.
- Prepare and submit 3x sets of hard copy and 1 soft copy of Manufacturing Data Pack along with delivery.

Exclusions

- Cranage
- Insulation (Lagging and Cladding).
- Scaffolding

C.1.5 Design Plant Information

The following drawings, data and/or manuals may be referred to for information to but remain the property of Foskop (Pty) Ltd and shall be returned to Foskop (Pty) Ltd on completion of the work.

Drawing No.	Title / Description	Revision
W801-00-03-32-1-001	Arrangement of Superheater & Economizer for SAP A Plant	4
W801-00-03-32-1-008	GA & D of Superheater Bank	3
W801-00-03-32-2-009	Details of Headers for Superheater Bank	3

DESIGN DATA				
Description	Units	Shell side	TUBE SIDE	
			Superheater	Economiser
Fluid	-	Gas	Steam	Water
Fluid flow rate	kg/hr	146000/170000	110000	116000
Surface area (EFF) (FIN BASIS)	m ²	-	2989	1211
Working pressure	kpa (g)	8	3275/2950	4300/3350
Working Temperature	°C	453/190	240/346.5	108/158
Water holding capacity (Gross)	Ltrs	N/A	4229	1742

DESIGN DATA	
Material	
Casing	SA 240 gr 304L
Tube Plate	SA 240 gr 304L
Supporting Steel Work	SA 516 Grade 70
End Caps	SA234 gr WPB/SA 210 gr A1
Header Pipes	SA 106 gr B
Fins	SA 240 gr 304L
Tubing	SA 210 gr A1

All work listed in this scope of work shall be completed in accordance with the latest copies of drawings/specifications as listed below. It is the responsibility of the tenderer to ensure that the manufacturer has the latest copies of drawings/specifications as listed for the execution of this project.

On completion of the project the Contractor must certify all documentation and drawings for correctness and conformance, specifying which standards and regulatory acts these conform to.

C.1.6 Applicable Legislation, Standards and Codes of Practice

Latest revisions or amendments of the listed codes and specifications are applicable to this contract:

Number	Title / Description	Revision
Act 85 of 1993	Occupational Health and Safety (OHS Act)	Latest
SANS 347	Categorization and conformity assessment criteria for all pressure equipment	Latest

ASME VIII Div 1	Rules for Construction of Pressure Vessels	Latest
ASME V	Nondestructive Examination	Latest
ASME IX	Qualifications Standards for Welding Specifications	Latest
TEMA R	Construction of Shell and Tube Heat Exchangers	Latest
AWS D1.1	Structural Welding Code - Steel	Latest

C.1.7 Applicable Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the specifications listed below.

Those specifically applicable to this Tender is **marked with “YES”**, **however** it does not exclude other specification listed or implied, and it remains the Tenderer's responsibility to ensure that work execution and tender prepared is in line and meets the requirements of all standards indicated or not.

Number	Title/Description	Version
FM001	General Mechanical Specification	Latest
FM003	Welding of Fabricated Equipment	Latest
FM273	Fire Tube Waste Heat Boiler	Latest
FQ001	General Engineering Quality Requirements	Latest
FQ002	Non-Destructive Testing	Latest
FY001	Design/Fabrication of Piping	Latest
GM1	General Mechanical	Latest
GM6	Engineering Drawing and Document requirements	Latest
GQ1	Quality Control procedure for Contractors	Latest
MC001	Color Coding Richards Bay	Latest
SS-000000-Q-001	General quality requirements	Latest

The Contractor is referred to the Specification mentioned for full descriptions of materials and methods referred to in these Bills of Quantities/Lump Sum documents, insofar as they apply.

The Contractor is advised to study the referred to specification before pricing Bills of Quantities/Lump Sum documents.

No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items in the Bills of Quantities/Lump Sum documents which are fully described when read in conjunction with the relevant Preambles and/or Specifications.

Suppliers of materials and the like, whose quality systems apply with one or more of the SABS/SANS ISO 9001 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark.

The Contractor is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.

C.1.8 Foskor SHREQ Requirements

The following are safety requirements that must be adhered to:

A safety plan for the work to be done by the contractor.

The contractor must appoint a qualified Safety Officer with at least Diploma in Safety Management or SAMTRAC or both either on a full-time or part-time basis to conduct the following responsibilities:

- Conduct and submit audits monthly.
- Conduct and submit inspections monthly.
- Compile and submit a monthly safety report to Safety Department.
- Perform safety talks and awareness training and submit evidence to Foskor.
- Visibility on Site.
- Conduct inspections on PPE and provide evidence to Foskor.
- Continuously update Safety File.
- A contractor submits a comprehensive task-based risk assessment that has acknowledged the Foskor baseline risk assessment and method statement.
- A contractor to appoint a full-time Supervisor to manage and supervise all the activities of his/her employer.
- All new work activities must have scope of work and communicated to Safety Department before starting with the work with exception of emergency breakdowns.
- All maintenance emergency work and consultants are exempted from the above-mentioned safety requirements.

NB

A contractor that has been awarded work must register with HSEC Online, which is a contractor management system for Foskor Acid Division where all contractors are required to submit their safety files.

C.1.9 Tender Deliverables

The following documentation shall be returned by all Tenderers together with their offers:

- Work Methodology that clearly indicates all the activities to be carried out.
- Contract delivery program clearly indicating the earliest delivery time (Gantt Chart or equivalent).
- Project Milestones.
- Company Profile (If supplier has not previously supplied similar product to Foskor Richards Bay).

- Reference Letter (Similar Contract Undertaken).
- Quality Control Plan (QCP).
- ISO 3834 Accreditation.
- ISO 9001 Accreditation.
- Details of insurances and guarantees.
- Price Lump sum at fixed cost and delivery date.

C.2 Site Conditions

It will be imperative for the successful Tenderer to liaise with the Foskor (Pty) Ltd.'s designated team leader (Foskor representative) to ensure safety whenever site access is required. Full acid-resistant PPE (personal protective equipment/clothing) must be always worn/used. Be cautious of Foskor equipment, employees and contractor employees doing their routine maintenance and daily duties in the area at all times.

As it will be deemed that the prevailing conditions have been considered when tendering, no claims for extras arising from failure to observe all site conditions will be admitted.

C.3 Services which are known to exist on the site

The following services exist on the site:

C.3.1 Fokor Supplied Services Fokor (Pty) Ltd shall be responsible for:		Applicable:
1	Supply a copy of the relevant Fokor Procedure Specification(s).	refer C1.7
2	Supply a copy of reference drawings if required.	refer C1.5
4	Provide access to electricity connection points Any connection and consumption will be monitored by Tenderer and verified by Fokor on defined intervals (usually at the beginning and end of contract)	YES
5	Provide access to potable water Connection and consumption would need to be monitored by Successful Tenderer (Contractor) and verified by Fokor on intervals (usually at the beginning and end of contract) defined by Fokor	YES
6	Provide a suitable area for site establishment for Successful Tenderer (Contractor). - Successful Tenderer to formally in writing motivate, request and define the area and services it deems necessary for site establishment. - Fokor will at its own discretion (if request is approved) allocate a site establishment area, however Fokor can should it deem necessary retract or re-define its approval by giving reasonable notice to the successful Tenderer	YES
7	Provide access to ablutions facilities. (not change rooms) - Successful Tenderer (Contractor)'s workers to be fully dressed in required PPE when coming on site. - The successful Tenderer to ensure that its workers/subcontractors/ supplier that are making use of facilities, do so in an orderly and well-mannered way. - Successful Tenderer is not allowed to make use of Fokor's change room or tearoom facilities unless agreed to in writing. - The successful Tenderer might be called on to assist with the maintenance and cleaning of ablutions, should Fokor at its discretion believe it be necessary. Cost associated with such cannot be claimed from Fokor (Pty) Ltd.	YES
8	Assist in issuing of work clearances and HIRA certificates.	YES

C.4 Successful Tenderer (Contractor) Responsibilities

The successful Tenderer (Contractor) shall be responsible for (inter alia):		Applicable:
1	Design, Manufacturing, Installation and Commissioning of two Superheater & Economizer No.1 units.	YES
2	Ensuring that all acceptance approvals as per the Quality Control Policy (QCP) are received before work is finally handed over.	YES

Note that concerning above:

- No claims towards losses will be accommodated.

- ii. All items that the Successful Tenderer will bring to Foskop (Pty) Ltd, will be subjected to review and approval by Foskop (Pty) Ltd and shall conform to Foskop procedures.

C.5 Certification by Recognized Bodies

Only Tenderers registered with the relevant Board will be accepted and permitted to do work under this contract.

C.6 Requirement for the termination, diversion, or maintenance of existing services

The Contractor must immediately bring to Foskop's attention any previously unspecified or obstructing services existing in his area of work and without terminating/diverting/hindering such services.

C.7 Nominated Sub-Tenderers

Should the tenderer anticipate using Subcontractors for any part of the scope, these must be specified below.

The following Sub-Tenderers are nominated:

Contractor	Concerning Works	Contact

C.8 Invoicing and Payment

Payment will be made by Foskop (Pty) Ltd, after approval (with consideration for the construction, completion and defects corrections of the Works) by the Foskop (Pty) Ltd's Project Representative (i.e. Engineer, Project Supervisor) of the submitted Payment Certificate to the Tenderer within **30 (thirty)** days from the date of the Tenderers approved statement.

The invoice shall be approved in accordance with the provisions of Foskop (Pty) Ltd.'s terms and conditions.

The invoice submitted is to be in a format acceptable to Foskop (Pty) Ltd's Project Representative and needs to contain the following minimum information:

- Company details, registration no and VAT registration no,
- Purchase Order no & Date of Invoice,
- Copy of Purchase Order,
- Detail description of work done to date,
- Value of the current claim and work done (excl. VAT),
- VAT charged.

C.9 Standing Time

Standing time is defined as a period of time measured in hours, when the Contractor's normal operational cycle is affected by causes caused by Foskor (Pty) Ltd and results in normal stoppage or major disruption to the regular progress of the Works.

Payment to the Contractor for standing time will be certified only where, in Foskor (Pty) Ltd's opinion, the delay was clearly beyond the reasonable control of the Contractor and the Contractor further took all reasonable measures to avoid or reduce such delay and such delay imposed direct costs to the Contractor.

C.10 Progress of Works

Should Foskor (Pty) Ltd at any time be of the opinion that the rate of progress of the Works or any part thereof is too slow to ensure the completion of the Works or any part thereof by the Completion Date, Foskor (Pty) Ltd shall so notify the Contractor in writing, with specific reference to this Clause, and the Contractor shall thereupon, subject to the approval of Foskor (Pty) Ltd take such steps as are necessary to expedite progress so as to complete the Works or the said part thereof by the Due Completion Date.

C.11 Penalty

If the Contractor, by the Due Completion Date, fails to complete the Works to the extent which entitles him to receive a Certificate of Practical Completion, the Contractor shall be liable to Foskor (Pty) Ltd for an amount of **0.1% for every Calendar Day that the works is late or such portion of the contract price as is associated with that part of the Works.**

The imposing of such penalty shall not relieve the Contractor from the obligation to complete the Works or from his obligations and liabilities under the Contract.

C.12 Claims: Extension of Time for Completion, Additional Payments or Compensation**C.12.1 Claims Procedure**

The following provisions shall apply:

- i. Claims are to be submitted in writing within **7 days** after the circumstances, event, act or omission giving rise to such claim has arisen or occurred to the Foskor (Pty) Ltd Project Representative
- ii. Submit **written notice** to the Foskor (Pty) Ltd Project Representative of the intention to claim within **7 days** after the circumstances, event, act or omission giving rise to such claim has arisen or occurred. The Notice and subsequent claim to set out:
 - a. Particulars of the circumstance, event, act or omission giving rise to the claim concerned;
 - b. Provisions of the portion of the contract on which he intends to make the claim;
 - c. Length of extension of time, if any, claimed and the basis of calculation thereof, and
 - d. The Price Adjustment, if any, claimed and the basis of calculation thereof.
- iii. If the Contractor cannot reasonably comply with any of the provision above within the said period 14 days, he shall:

- a. Notify the Foskor (Pty) Ltd Project Representative in writing of his intention to make the claim and comply with such requirements as he reasonably can;
 - b. Deliver additional information in writing that is reasonably required by Foskor (Pty) Ltd; and
 - c. Comply as soon as practical with such requirements as described above in this clause, within a time agreed to by the Foskor (Pty) Ltd Project Representative.
- iv. In the event of failure to comply to any of the provisions, the claim would not be accommodated and Foskor (Pty) Ltd would be discharged of all liability in connection with the claim.

C.12.2 Extension of Time for Completion

The whole works shall be completed within the time agreed upon.

If any circumstances of any kind whatsoever may occur and as such, fairly entitle the Contractor to any extension of time for the completion of the works or portion thereof, then the Foskor (Pty) Ltd Project Representative will consider a claim duly submitted.

C.13 Cancellation of the Contract by Foskor (Pty) Ltd

If:

- (a)
 - (i) The estate of the Contractor shall be sequestrated (provisionally or finally), or
 - (ii) The Contractor shall publish a notice of surrender of his estate as insolvent, or
 - (iii) The Contractor, being a company or a close corporation, shall go into liquidation (provisionally or finally), or
 - (iv) The Contractor shall assign the Contract without the consent in writing of Foskor (Pty) Ltd having first been obtained, or
 - (v) The Contractor shall enter into a compromise with the general body of his creditors, or
 - (vi) The Contractor shall have an execution levied on his goods, or
- (b) the Foskor (Pty) Ltd Project Representative shall certify in writing to Foskor (Pty) Ltd, and to the Contractor/Consultant, with specific reference to this Clause, that in his opinion the Contractor/Consultant:
 - (i) has abandoned or repudiated the Contract, or
 - (ii) has, without reasonable excuse, failed to commence the Works in terms of the time allowed and agreed to, or
 - (iii) has suspended the progress of the Works without due cause, or
 - (iv) has failed to proceed with the Works with due diligence, or
 - (vi) is not executing the Works in accordance with the Contract, or
 - (vii) has, without the approval of the Foskor (Pty) Ltd Project Representative, subcontracted any part of the Contract, or
 - (viii) has failed to provide the Surety ship, Professional Indemnity within the time stipulated and for 14 days after receiving a written notice from the Foskor (Pty) Ltd Project

Representative, referring specifically to the default concerned and to this Clause, failed to remedy the default,

(c) Foskor (Pty) Ltd may, by written notice to the Contractor, terminate the Contract and withhold any payments due until further notice.

C.14 Urgent remedial work

All designs changes or remedial action must be communicated to the Foskor Engineer or the authorized Foskor Designate. Approval of such must be sought and received as early as not to impose undue costs and delays. Should there however be remedial work necessary, the Contractor shall, upon approval from the Foskor Engineer/Designate, effect these with care, accuracy and speed, so as not to impose undue extension of time and /or cost.

If any remedial work as done by Foskor (Pty) Ltd is work which the Contractor was liable to do at his own expense under the Contract, all costs incurred by Foskor (Pty) Ltd in so doing shall be determined by Foskor (Pty) Ltd or its agent and shall on demand be paid by the Contractor to Foskor (Pty) Ltd.

C.15 Environmental Management Specifications

In order to ensure that the construction works is designed for an environmentally sensitive area, strict compliance to the Environmental Management Plan (EMP) guidelines may be requested after appointment of the contractor.

The EMP shall be part of the terms of reference for all contractors/consultants, sub-contractors/consultants and suppliers.

A copy of the EMP requirements is available from Foskor (Pty) Ltd SHREQ department.

All MSDS's to be submitted to Foskor (Pty) Ltd.

Waste disposal needs to comply to Foskor (Pty) Ltd Waste Management Plan.

C.16 OHSA 1993 Health and Safety Specification

This specification covers the health and safety requirements to be met by the successful Tenderer (Contractor) to ensure a continued safe and healthy environment for all workers, employees and subcontractors/consultants and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction regulations.

C.16.1. Health and Safety Induction

The successful Tenderer (Contractor) shall ensure that all employees under his control, including the subcontractors/consultants and their employees, undergo a health and safety induction training course by a Foskor competent person before entering site.

- a. The Contractor shall ensure all his/her personnel have attended the Safety Induction, by Foskor (Pty) Ltd before they enter site.
- b. The Contractor on entering site, must wear Foskor minimum required PPE at all times namely safety glasses, acid resistant overalls, safety harnesses (on heights), safety boots or steel cap gumboots, ear protection and **gas masks (Half mask double filter –**

- screw type with filter type A1B1E1K1 – North Safety Product or similar approved product) and goggles (Uvex ultra vision – W1663459B – DIN CE 0196) preferably in a pouch.** Should a Contractor be found on site without the above-mentioned safety clothing, he will be removed from site and will not be allowed to return. FFP3 dust mask fitted with an exhalation valve must be used when working in dust in on the B&D Store.
- c. **Overalls must be Blue Sweet Orr overall (80% Polyester 20% Viscose Rayon Acid repellent) with Company names either on front of jacket or back OR Blue North Safety Acid/Flame overall (Flame retardant acid resistant anti-static ATPV 15.4CAL/CM2) with company names either on front of jacket or back and fluorescent reflective strips to be stitched onto sleeves and on the knees.**
 - d. The Contractor shall demarcate the relevant work area. The Contractor shall supply and erect an appropriate name board with all relevant information and contact details at the work area.
 - e. The job risk assessment shall be carried out at the start of each shift. This risk assessment shall cover all activities planned for the relevant shift. The risk assessment shall be submitted to Foskop (Pty) Ltd at the start of each day shift and each night shift.
 - f. The Contractor must take safety precautions when working on site.
 - g. The Contractor must remove all their equipment within 48 hours after project completion/closure.
 - h. A complete safety file to be submitted to Foskop (Pty) Ltd Safety Department before any work commences.
 - i. The Contractor's vehicle when entering the Plant must have rotating orange lights always switched on.
 - j. **The Contractor and their employees must undergo a full medical at either Foskop (Pty) Ltd's Clinic or Caredoc Richards Bay or their approved by Foskop (Pty) Ltd. A full lung function test must be done. If a project is longer than twelve months, then a complete medical including lung function tests must be done again and thereafter the lung function test. Medical certificates are valid for one year only. For medical costs and bookings please contact Sister Larna Pieterse at Foskop (Pty) Ltd Clinic on 035 902 3287.**
 - k. A once-off fee is also required for access cards from Foskop Security. Please contact the Foskop (Pty) Ltd Security Reception at 035 902 3267 for information.
 - l. No access to elevated platforms, roof and scaffolding will be allowed during rainy days.

MANDATORY AS ENVISAGED BY SECTION 37(2) OF THE ACT

By the submission of a tender, any tenderer will, if awarded the contract to which this tender document relates, be deemed to be mandatory as envisaged by Section 37 (2) of the Act.

As a mandatory the successful tenderer will be deemed to be the "principal contractor" and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed in accordance with the Act.

It is further noted that:-

- a) The Contractor shall comply with all Foskor Regulations and Safety Standards.
- b) The Contractor shall fully comply with the OHS Act (Act 85 of 1993).

IMPORTANT NOTE

The above is a summary of some of matters as defined in the Act. The successful Tenderer (Contractor) is required and advised in his own interest to make a careful study of the Act and the Construction regulations.

Ignorance of the Act and the Regulations will not be accepted in any proceedings, as valid reason if non-conformance to the Act and the Regulations are committed.

C.17. Applicable General Conditions of Contract

Unless expressly otherwise indicated, Foskor General Conditions of Contract and the FIDIC terms of Contract would apply, and is available from the Manager Procurement Foskor Richards Bay.

C.18. Quality Management

The successful Tenderer is to adhere to Foskor (Pty) Ltd's Quality Management System and specifications incorporated in this Tender Document.

To ensure that all installations are carried out in a controlled manner, the Contractor shall demonstrate this by means of the internal quality system, which shall include as a minimum a QCP for each piece of equipment. The QCP must be approved by Foskor before commencement of any work.

C.18.1 Quality Control:

- i. A detailed QCP (Quality Control Plan) shall be submitted within 7 days of contract award.
- ii. Quality of work must be always monitored and controlled at a high level.
- iii. At each hold and witness point all work shall be suspended until the specified inspection has been completed and the QCP updated and signed accordingly by Foskor (Pty) Ltd or its representative.
- iv. At each milestone, the designated Foskor (Pty) Ltd Quality Representative must approve the quality and standard of work being produced.
- v. It shall be the responsibility of the Successful Tenderer (Contractor) to give Foskor (Pty) Ltd timely notice of hold and witness points requiring their intervention.

Section D: Technical Evaluation Criteria

Design, Manufacture and Supply of Economizer 1A Superheater Tube Bank for Sulphuric Acid A Plant			
Mandatory Requirements: Bid submission not meeting these requirements will result in bid being disqualified.			
1	Submission of the CIDB 6ME Registration Certificate for the Principal Contractor - Proof of the Certificate is required		
2	Submission of ECSA Registered Pr. Engineer/Technologist Certificate as Competent Person to sign off on all designs - Proof of the Certificate is required		
3	Submission of Certified and SANAS accredited AIA - Proof of the Certificate is required		
4	Submission of Certified and Registered SAIW Welding and Fabrication Inspector Level 2 Inspector - Proof of the Certificate is required		
5	Submission of proof for ISO3834 Certification - Proof of the Certificate is required		
Technical Evaluation Criteria for this Tender which excludes Commercial Evaluation:			
No	Technical Criteria Description	% Contribution	Proof / documents to be submitted
1	Experience & Team Competence		
a)	Company - Previous Superheater Designs Scoring: Less (<) than 1 year experience = 0 ≥ 1 year < 5 years = 5% ≥ 5 years < 10 years = 10% > 10 years = 15%	15%	Give reference list of projects (in a tabular format), with values and client contact numbers for verification.
b)	Company - Previous Steel Construction and Refurbishment of Superheaters Scoring: Surface Area < 2000 sqm = 5%; Surface Area >2000sqm<3000 sqm =10 Surface Area > 3000 sqm =15%	15%	Give reference list of projects (in a tabular format), tank sizes, project values and client contact numbers for verification.
2	Company Delivery Capacity & Reliability		
a)	Company Delivery Times - Execute construction according to a pre-approved WBS / Project Schedule/ Milestones/ Bar Chart/Gantt Chart	25%	Are the delivery times/ project programme and duration acceptable? Milestone breakdown provided. Refer to B.2 table on page 9 in Tender Document for 6 months duration of Project.

	Scoring: No Schedule = 0 %; 3 to 6 Months = 25%;		
3	Scope of Work Compliance		
a)	Adherence to Scope of Work and its Specifications, and especially the ASME VIII Standard. Scoring: No work methodology = 0 %; Full scope adherent well documented methodology = 15%	15%	Provide and submit relevant preliminary high level Work Methodology that considers the construction of the acid storage tank and it highlights essential details.
b)	Provide Quality Control Plan Scoring: No quality control plan = 0 %; Comprehensive quality control plan = 15%	15%	Provide and submit quality control plan relevant to the work methodology.
4	Safety Requirements		
a)	Provide Safety Management Plan Scoring: No Safety Management Plan = 0 %; Comprehensive, well-defined safety plan = 5%	5%	Provide and submit Safety Management Plan that includes Health and safety policies, Safety training records, Incident reporting and emergency plans.
b)	Provide Safety Officer Experience Scoring: Experience < 5 years = 0% Experience > 5 years = 5%	5%	Provide and submit CV of the safety officer detailing involvement in heavy engineering environment
c)	Provide Qualification of Safety Officer & SACPCMP Registration No proof of registration = 0% Proof of Registration = 5%	5%	Provide proof of SACPCMP registration
	Total Technical Score	100%	
Note: 70% will be minimum required to be considered for this tender			