

DIGESTION TANK No.1 REBUILD

Tender no: [FTP / /](#)

Cost Code:

Revision¹: 1.0 see legend at bottom of page

Revised date: 18 February 2025

NAME	TITLE	Employ. no	SIGNATURE	DATE
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COMPILED - RECOMMENDATION

Vitus Nzimande	Project Engineer	503852		
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COMPREHENSION AND ACCEPTANCE BY CLIENT

The Client warrants that he/she reviewed the Scope of Works and that this Tender and related document and that the Scope of Works comply to Production requirements and the outcome of the work as agreed between parties.

Morris Gcumisa	Maintenance Engineer	503508		
Sagie Moodley	Senior Manager Production	504385		

Comments:

APPROVAL TO PROCEED

Ramotshere Moroeng	Senior Manager Projects	505219		
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Comments:

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 **Digestion Tank No.1 Rebuild.**

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	Mphumeleli Ngqulunga
Telephone	035 902 3115
Fax	035 797 3941
Cell no	
Email	PhumeN@foskor.co.za

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. <u>FTP / /</u>	The Manager Procurement FOSKOR LIMITED 21 John Ross Parkway Richards Bay
Contract Title: Digestion Tank No.1 Rebuild	
Closing date & time:	

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	From: To:
Meeting Venue	Report at Main Security Entrance

Please wear the following protective clothing and note these must be **Foskop approved PPE**:

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

IMPORTANT

- Please note that a Safety Induction is **MANDATORY** and all Tenderers to allow for at least **30 minutes** before the Site Meeting start, to complete the induction.
- The Site Visit / Inspection are **COMPULSORY**.

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 below.

- 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 detail and be signed (by authorized person) and/or company-stamped together with tender submission.

A.4.3.1 Schedule of rates of Costs in detailed Breakdown or Labour Rates for the Works or Breakdown per Bill of Quantities

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 Key Personnel on the Project

A.4.3.4 Schedule of Similar Contracts Undertaken

A.4.3.5 Site Inspection Certificate – signed by Tenderer as proof of attendance

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 Foskor (Pty) Ltd reserves the right to adjust arithmetical or obvious errors in the Tender. Such adjustments made by Foskor (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 thereof without the permission of Foskor (Pty) Ltd.
- A.7.3 Foskor (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 Foskor (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 Foskor (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, Foskor 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:
 - a) 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.
 - b) Enter into any agreement or arrangement with any third party that shall disqualify from or that Foskor shall refrain from using.
 - c) 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 – for details refer to the attachment

	From Bill of Quantities – if applicable or →	Qty	x rate =	ZAR	
	SUB TOTALS:				
	Digestion Tank No.1 Rebuild				
1.00	Preliminary & General				A1
2.00	Concrete Plinths and Civil Refurbishment				A2
3.00	Design, Fabricate and Install new Digestion Tank				A3
4.00	Design, Fabricate and Install Launderers				A4
5.00	Rubber Line Digestion Tank				A5
6.00	Brick Line Digestion Tank				A7
7.00	Provide as-built drawings				A8
	Sub Totals Sum (Excluding VAT)				A9
3.0	Add: VAT	15%			
4.0	Total Tender Sum (Including VAT)				A10
B1.1	In the event of their being any obvious errors of pricing, extensions or additions in the priced Schedule of Quantities 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 (<i>held for 12 months, unless otherwise specified</i>) 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				
	WE AGREE TO A 10% RETENTION and 12 MONTHS DEFECTS-LIABILITY RETENTION PERIOD.				
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 wks. from tender close date)

Snagging/Modification List Date

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

Defects Liability Period Applicable (Start from Project handover)

Retention Payment:

10 Months
12 months from Project Completion & Handover (Refer B1.4)

TO BE SUBMITTED WITH THIS TENDER

The Tenderer shall submit with this Tender:

- 1 Initial programme (Bar Chart/Gantt Chart)
 - 2 Milestones; and
 - 3 Indicative Cash Flow / Invoicing
 - 4 Record of experience and references
 - 5 Proof of professional registration
- for the Works to be completed in the time allowed

OTHER IMPORTANT NOTES

- **'Defects Liability Period'** shall be that period in force for Foskop to call upon the Contractor/Consultant to rectify at no cost to Foskop (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 Foskop's 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 Foskop (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 Foskop (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 or MS Excel to compile the Project Program).
- 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 Foskop.

B.2.1 Project Completion and Handover; Retention

Unless otherwise agreed, Project Completion (handover), shall be deemed to be from date of Foskop 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 Foskop 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 Foskop a Project Complete/Handover Certificate, which receipt shall define and signify the commencement of Retention Period (if applicable).

B.2.2 Initial Programme 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.2.3 Table with Milestones to be Submitted

Using the critical path items from the programme compile related Milestone Dates. Thus, the items/actions/ activities to be met that is critical towards the completion of the project

B.3 Schedule of Key Personnel on the Project

The Tenderer shall:

1. Complete schedule B.6.1 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 / Owner				
Site Manager/ Contracts Manager				
Quality Assurance and Control				
Document Control and Accounts				
Safety Officer				

These persons shall not be substituted without prior consultation with and approval from Foskor (Pty) Ltd.

NB: Failure to submit this information at the time of tender could lead to disqualification of the tender.

B.4 Schedule of Similar Contracts 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)

[illegible]

B.5 Schedule of Labour Rates for the Works

The rates for labour indicated below shall be the Total Cost to the Company (Contractor). It shall include for all the Contractor's profits, overheads, wages, accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the personnel detailed, and for hand and portable electric or pneumatic tools and consumables normal to the trade of the respective personnel.

However, it will exclude indirect supervision as same are deemed to be included under the costs relating to the Conditions of Contract i.e., non-productive supervisors are deemed to be included in the rate.

The rates detailed herein shall **not** be subject to escalation.

The Contractor's rates per hour are based on a normal **9 hours per day**.

The application and use of these rates shall be at the sole discretion and subject to the prior approval of the Foskor designate representative.

The table below will also assist should the need for a standing time claim arise.

[illegible]

B.6 Schedule of Equipment for the Works

The Contractor shall list below all the items of major equipment, which he guarantees will be provided on site in perfect working order to complete the work. The lists of items of equipment shall provide the Contractor's warranty of ownership of such equipment unless specifically endorsed in this Annexure to the contrary as "hired" or "hire purchase equipment."

The rates for Equipment detailed below shall include all overheads, profits, and maintenance and running costs including the provision of drivers/operators where necessary.

Contractor's rates per day are based on **9 hours per day.**

The rates detailed herein shall not be subject to escalation. No payment in respect of standing time shall be paid for items of equipment not listed below.

This Schedule shall be accurately completed. Phrases such as "adequate equipment will be provided" will not be accepted. The application and use of these rates shall be at the sole discretion and subject to the prior approval of the Engineer.

The table below will also assist should the need for a standing time claim arise.

[illegible]

B.7 Site Inspection Certificate – To be signed by Tenderer

This is to **CERTIFY**, that we
Name (s in CAPITAL LETTERS) (Referred to on the Form as "We")

representing and being duly authorized by:

.....
(Name of Company and Address) (Referred to on the Form as "We")

1. Visited the SITE on (date);
2. Received the TENDER Documents (including all attachments and subsequent correspondence related to this tender);
3. Carefully examined the SITE and made ourselves familiar with all local conditions likely to influence the WORKS and the cost thereof;

We further CERTIFY that we are satisfied with the description of the WORKS and explanations given by Foskor (Pty) Ltd and that we fully understand the nature of this TENDER.

I/We are,

Yours faithfully

SIGNATURE: _____

ON BEHALF OF: _____

DATE: _____

AS WITNESS: _____

Section C: SCOPE OF WORKS

C.1. Background, Present Situation and Proposed Solution

C.1.1 Background

The main purpose of Digestion Tank is to ensure adequate digestion of slurry thereby ensuring higher P_2O_5 recoveries. The Digestion Tank plays a vital and a significant role in the maturation of gypsum crystals before filtration process can commence. This tank is regulated by Foskor under the API 650 Standard and fabricated from mild steel, lined with rubber, and had carbon acid brick lining.

It has become necessary to replace the Digestion Tank to have better reliability of the tank structure.

The main aim of this scope of work is to rebuild the Digestion Tank No.1 by conducting the re-Design, Fabricate, Supply, Install Rubber lining and Carbon Acid Brick lining of the new Digestion Tank.

C.1.2 Present Situation

The Digestion Tank No1 has been recently running with multiple defects. The digestion tank has shown hair line cracks on brick lining and the shell. The tank was taken out of operation on the 16th of September 2022 and the demolishing of the tank commenced on the 18th of November 2024 and concluded 31 January 2025. It has been demolished.

C.1.3 Proposed Solution: Reason for this Tender

The following scope of work is proposed for the project:

- Re-Design, Fabricate, Supply, Install, Rubber line the entire internally - roof, walls and floor and carbon brick lining internally of the new Digestion Tank No.1
- Design, Fabricate, and Install the inlet launder from the reactor and the outlet launder to Digestion Tank number 2. Remove the launder from the reactor to Digestion Tank number 2 as part of commissioning.
- The concrete plinths structures are subjected to harsh environmental conditions emanating from process overflows during operations.
- This tank will be constructed on top of this existing concrete plinths. The concrete plinths' integrity is to be inspected for damage and defects, repaired and certified safe for use by the contractor.
- The new Digestion Tank is to be fabricated out of carbon steel material. Corrosion protection will be applied on the overall tank structure.

C.2. Legislation, Standards and Codes of Practice

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

Number	Title / Description	Revision
COP6	Control Of Construction Work	Latest
Act 85 of 1993	Occupational Health and Safety (OHS Act)	Latest

SANS 1200	Civil Construction Work	Latest
SANS 10100	Structural use of concrete	Latest
S28 NEMA (1998)	Duty and care of environmental degradation	Latest
API 650	Shop and Field Fabricated Tanks	Latest
ASME IX	Welding Procedures/Qualifications	Latest
ASME V	Inspection Requirements	Latest
ASME V	NDT Specifications	Latest
SANS 1201	Application Of Rubber Lining on Vessels	Latest

All work listed in this scope of work shall be completed in accordance with the latest specifications and latest codes as listed above. It is the responsibility of the Tenderer to be in possession of the latest standards and latest codes as listed above in the execution of this project.

C.3. Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the latest 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	Applicable
OTHER STANDARDS on this Tender			
APPLICABLE FOSKOR SPECIFICATION on this Tender			
E003	Industrial Electrical Installations	Latest	
EC1	Installation, Testing and Commissioning of Electrical Equipment	Latest	
FC005	General Earth Works to Plant and Building	Latest	Yes
FD001	Design Criteria for Structures	Latest	Yes
FG001	General Requirements for Projects	Latest	Yes
FL001	Design & Fabrication Criteria for Ladders & Walkways	Latest	Yes

FM001	General Mechanical Specification	Latest	Yes
FM003	Welding of Fabricated Equipment	Latest	Yes
FM002	Rubber Lining of Vessels and Piping	Latest	Yes
FM003	Welding of Fabricate Equipment	Latest	Yes
FM432	Insulation of Vessels and Piping	Latest	Yes
FQ001	General Engineering Quality Requirements	Latest	Yes
FQ002	Non-Destructive Testing	Latest	Yes
FS001	Specification for the Fabrication & Erection of Structural Steel Work	Latest	Yes
FS002	Specification of Roof and Side Cladding	Latest	
FV001	Requirements Vessels, Tanks and Heat Exchangers	Latest	Yes
GM5	Pipe Standards Including Auxiliary Equipment	Latest	
GM6/COP9	Engineering Drawing and Document requirements	Latest	Yes
GQ1	Quality Control Procedure for Contractors	Latest	Yes
GS1	Structural Steelwork and Plate Work Fabrication and Erection	Latest	Yes
MC001	Corrosion Protection Colour Coding	Latest	Yes
MC002	Scope of Corrosion Protection Richards Bay	Latest	Yes
MC004	General Plant Painting Specification Low Temperature	Latest	Yes
MC006	Repair/Touch-up of Damaged Steelwork	Latest	Yes
MC009	General Plant Protection High Corrosive Areas	Latest	
MC010	Painting Tank Grillage	Latest	Yes
SS-000000-C-006	General specification for concrete construction	Latest	Yes
SS-000000-C-007	Concrete specification	Latest	Yes
SS-000000-C-012	Grouting	Latest	Yes
SS-000000-Q-001	General quality requirements	Latest	Yes
SS-000000-S-001	Fabrication and erection of structural steelwork	Latest	Yes
DD-000000-C-001	Civil design criteria	Latest	Yes
DD-000000-S-001	Structural design criteria	Latest	Yes

Where there is contradiction between the FOSKOR Specification and Legislation, Standards and Codes of Practice, therefore, FOSKOR specifications shall not take precedence. It is the responsibility of the Tenderer to highlight to FOSKOR the contradictions on the above.

It is the responsibility of the Tenderer to be in possession of the latest specifications as listed above or implied in the execution of this project.

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 Tenderer 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 9000 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark.

The Tenderer 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.4. Project Requirements

The scope of work for the project is consistent of the following main works:

- **Digestion Tank No.1 Rebuild**

The Tenderer shall further ensure that all work is executed with a detailed quantity of work and/or design detail is provided and complies with the specifications as set out in this document.

C.5 Plant Data

All work listed in the document will be constructed for installation at the **FOSKOR RICHARDS BAY PLANT, 21 JOHN ROSS PARKWAY**

C.6. Drawings and Technical Data

The following reference drawings, technical data and/or manuals remain the property of Foskor and shall be returned to Foskor on completion of the work.

C.6.1 Drawings:

REFERENCE - DIGESTION TANK DRAWINGS		
Drawing No.	Title / Description	Revision
3333 – 1034 – D – 01	Digestion Tank 352 904 TK General Arrangement	Latest
3333 – 1034 – D – 04	Digestion Tank 352 904 TK Shell Plate Details	Latest
3333 – 1034 – D – 12	Digestion Tank 352 904 TK Internal Attachments	Latest
E762 - 04 – 293 - 021	Digestion Tank's Foundation – Filtration Beams - Reinforcement	Latest
E762 - 04 – 293 – 020	Digestion Tank's Foundation – Forms	Latest

C.6.2 Technical Data:

TECHNICAL DATA OF DIGESTION TANK	
Code of Design and Fabrication	API 650 - Latest Edition
Maximum Design Temperature	90°C
Design Pressure	Atmosphere
Specific Gravity	1850 Kg/m ³
Nominal Diameter	6.6 m
Nominal Height	7.99 m

All work listed in this Scope of Work shall be completed in accordance with the latest copies of drawings/specifications as listed above. It is the responsibility of the Tenderer to ensure that the Tenderer has the latest copies of drawings/specifications as listed above for the execution of this project.

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

C.7 Scope of Work

NB: Battery limit for this SOW is for Digestion Tank No.1 which is between the new reactor and Digestion Tank No2.

- The contractor must allow for the pumping of sludge that might spill in the area from production processes and build a temporary concrete brick spill protection wall around the area of work to prevent spillages. This temporary concrete brick spill protection wall to be taken out at the end of the project.
- The contractor must notify Foskor for temporary access scaffolding to the work area. Foskor to provide for all scaffolding requirements.

Rebuild New Digestion Tank No.1**1. Designs & QC Pack**

- Re-Design, Fabricate, Supply, and Install new Digestion Tank for Phosphoric Acid Plant, the contractor shall include all design calculations, stress analysis and drawings in the design.
- The Design Standard must be API 650 Latest Edition fabrication drawings.
- The contractor shall have or subcontract ECSA registered Pr. Engineer/Technologist as Competent Person to sign off on all the designs.
- Foskor shall appoint a SANS 17020 Accredited AIA, who is registered as such with and approved by Department of Employment and Labour.
- The contractor shall subcontract or employ for site/shop quality verification and assurance a certified and registered SAIW Welding and Fabrication Inspector Level 2 Inspector who has a recognized SAQA number for verification.
- The contractor with ISO3834 accreditation will have a better advantage in meeting the SOW requirements.
- Also note that Foskor Resident AIA shall oversee the functions of Manufacturing and conduct surveillance on activities of the manufacture.
- The contractor to supply detailed design drawings for the Digestion Tank for Phosphoric Acid Plant.
- The contractor must comply with all the requirements of this document and supply proof of any documentation as may be required by Foskor before issuing an official order.
- Fabrication drawings shall be supplied as CAD files and paper copies thereof reflecting the relevant information in accordance with the request of Foskor Limited. All the applicable Engineering design data shall be an integral part of the total package and supplied with the drawings.
- The contractor shall submit a Data Book at completion, containing Quality Control Plans, Release Certificate, Manufacture's Data Report, Design Calculations, As Built Drawings, AIA Inspection Report, Material Identification Sheet, Material Certificate, WPS & PQR, Welder Qualifications Certificate, Welding Consumables, Radiographic Test Report, Liquid Penetrant Testing, Magnetic Particle Test Report, Eddy Current Testing Report, NDT Procedures, NDT Qualifications Procedures, Name Plate Facsimile, Weld Map, Approved Drawings. These are to be submitted in both hard copies and soft copies to Foskor.
- The Tenderer submits the following information for approval to Foskor Resident AIA before starting fabrication: Design Calculations, Quality Control Plans, Welding Procedures, Material Certificates, General Assembly drawings

- The contractor shall be responsible for all required quality test, e.g., vacuum test, X-ray test on all verticals - 100%, and all horizontal -100% and all Tee Joints -100%, MPI on all nozzles – 100% and all manhole 100%, PT (Dye Pen) on shell to floor joint -100%, DFT reports, rubber pull test reports, shore hardness test reports, spark test reports, certificate of fitness.
- As a minimum the contractor must provide a nameplate which consists of the following information:
 - Name of Manufacture
 - Country of Origin
 - Year of Manufacture
 - Manufacture'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
 - Site Hydro test gauge Pressure in Pascal
 - Capacity in cubic meters
 - Mark of an Approved Inspection Authority (when required)
- Name plate to be attached to the Digestion Tank for the Phosphoric Acid Plant as per Engineers instruction.
- All paintings should comply with Foskor's - MC004 (New Specification).
- **NB:** The contractor to submit a fully completed Bill of Quantities (BOQ) as per the attached, Failure to this requirement might lead to cancellation of the contractor's tender.

2. Concrete Plinths & Civil Refurbishment

- The concrete plinths structures are subjected to harsh environmental conditions emanating from process overflows during operations.
- This tank will be constructed on top of this existing concrete plinths. The concrete plinths' integrity is to be inspected for damage and defects, repaired and certified safe for use by the contractor. Refurbishment work identified that will require the intervention of a civil and structural reinforced concrete contractor includes concrete plinths and foundation bases
- The tenderer shall use the Civil Structural Engineer (ECSA registered Pr. Engineer/Technologist) to verify and confirm the integrity of the plinths.
- The tenderer shall conduct any required remedial refurbishment work on the civil structure.
- Tenderer to submit work method for reinstatement of concrete and reinforcement.
- Saw cut 20mm recess around damaged areas.
- Break back all contaminated concrete to sound concrete and 30mm behind all exposed steel reinforcement. Concrete rubble to be disposed of into allocated free issued skips by Foskor.
- Scabbling/removal of internal and external smooth surfaces.
- Remove all corrosion from reinforcement by sandblasting or other efficient approved methods. Measured as area of the wall section.
- Supply and fix new steel reinforcement rebar to replace damaged reinforcement.
- Supply and apply a corrosion inhibitor, primer and bonding agent such as a Sika Top Armatec 110EC or similar approved agent on all exposed steel reinforcement measured as area of section. Materials to be prior approved by Foskor responsible Engineer.
- Supply, fix and strip 20mm shutter-ply formwork, complete with propping.
- Supply and saturate existing concrete surfaces with a suitable wet-to-dry-epoxy to bond new concrete.
- Supply and cast free-flowing, high strength, cementitious micro concrete with non-shrink properties such as Sika Grout 295 ZA or similar prior approved product. Materials to be prior approved by Foskor responsible Engineer.
- Supply and cast High-Early-Strength concrete in which the amount of tricalcium aluminate is not more than 5% and the sum of twice the Tricalcium Aluminate and Tetra calcium aluminoferrite is less than 25% such as sulf 8 CEM or similar approved.
- Supply and cast class (40/19) concrete for the plinths.
- Supply and apply concrete curing compound.
- All Levels to be confirmed as well.

3. Grillage and Floor

- All required grillage and floor plates to be fully NDT and corrosion protected before shell is erected.
- Centre of the floor to have a 2.5m x 2.5m carbon brick pedestal with pockets to make provision for 904L stainless steel wear plate to be installed. The 904L stainless steel – (2.5m x 2.5m x 6mm) wear plate covers this brick pedestal.

4. Tank Shell

- Fabricate and install the tank shell using S355JR (Mild Steel) material.
- Fabricate and install new V shape baffles as per reference drawing attached in annexures.
- Supply and install 1" mild steel sockets top and bottom of Tank shell where baffles are installed, 500mm from the floor and 500mm from the curb angle.

5. Rubber lining

- 5mm butyl soft Rubber Specification attached in the annexures.
- Spark testing the entire rubber lined surface.
- Connect the Dehumidifiers
- Measure and cut rubber to correct sizes panels.
- Grit blast to SA 2^{1/2} medium G depth (RZ) of 50µm.
- Take the humidity reading inside the vessel during Grit Blasting and Priming operations, the maximum humidity must be less than 70%.
- Apply two coats of adhesive solution.
- Apply rubber panels to tank surface.
- Supply and installation of 5mm rubber lining on the internal of the tank floor, shell, nozzles and manways and the roof.
- A double layer of rubber lining to be applied on the baffles.
- Rubber to have 100mm security strips on all joints.
- Rubber to be a pre-cured butyl rubber with a temperature tolerance of up to 100°C.
- A complete spark test, shore hardness and pull tests to be done. Two test plates to be made up from floor and shell for pull tests.

6. Carbon brick lining

- Supply and installation of 240mm x 115mm x 65mm carbon brick on the tank floor and shell.
- Supply and installation of 240mm x 115mm x 40mm carbon brick on the tank manhole (about radius of 500mm and 200mm above radius of manhole) and launders.
- Centre of the floor to have a carbon brick pedestal with pockets to make provision for 904L stainless steel 2.5m x 2.5m x 6mm wear plates to be installed.
- Carbon brick specification attached in the annexures.

7. Inlet launder from the reactor to the Digestion Tank no1.

- Design, Fabricate and install the inlet launder from the reactor to the Digestion Tank no1.
- The launder from reactor to Digestion Tank No.1 is 6mm thick 904L stainless steel material. It is flanged and bolted at the reactor side as well as at the tank side
- The launder from Digestion Tank No.1 to Digestion Tank No.2 is 6mm thick mild steel material, which is flanged, and it gets bolted both sides.
- The launder from Digestion Tank No.1 to Digestion Tank No.2 must be rubber lined by the 5mm Butyl rubber and be brick lined by 240mm x 115mm x 40mm carbon brick.

8. Equipment Installation

- Install the free issued agitator, motor, and gearbox
- Install 904L - 2.5m x 2.5m x 6mm wear plate on pedestal together with Brick Liners
- Provisional cost to be provided for the re-installation of the free issued agitator structure. This cost is to cover also the 4 off new beams (150x250x10 – 6m each) and its grating panels.
- Provisional cost to be provided for the re-installation of free issued piping.
- Fabricated launders

9. Electrical and instrumentation installation

- Foskor to conduct all required electrical and instrumentation installation.
- Foskor will also do the earthing stud.

10. Corrosion Protection

- Supply and application of Sigma paints as corrosion protection layers, as per MC004 Foskor Specification.
- Corrosion protection coatings to be applied as per Foskor specifications.

11. Commissioning and testing

- Ensure that all documentation is completed and submitted to Foskor.
- Perform squad check and ensure all deviations are addressed according to their ranking.
- Inspection to ascertain that all connection, gearbox, walkways are correctly mounted to their respective position prior to commission.

Basis of Price

- The Tenderer to supply as per the complete Bill of Quantities as submitted and which includes but not limited to: **Digestion Tank No.1 Rebuild.**

C.7.1 Scope of Work - Extent

The Contractor understands and shall fully satisfy the scope of required services, as described in the tender **FTP / /** handed out at the site inspection held on (date) _____, which is generalized as follows: **Digestion Tank No.1 Rebuild.**

1. Until otherwise notified, Foskor (Pty) Ltd have designated Mr. Vitus Nzimande (Project Engineer) and Mr. Anand Lalla (Project Supervisor) to act as Foskor representatives, and they are authorized to give instructions and to provide information to you on Foskor's behalf.
2. It is preferred that the supplier submit contact details for a designated 'point of contact' person who will be authorized to receive information and act on supplier's behalf.
3. Foskor's Health & Safety Representative will deal with all matters relating to the Health & Safety specifications and Construction Regulations relating to this assignment.
4. A pre-requisite of this contract is that the supplier confirms that he shall carry the necessary professional/construction indemnity insurance cover to the extent of the liabilities contemplated.
5. The Tenderer should determine the work methodology and approach. However, it is imperative that the outcome of the works meets all the criteria related to this project.

C.7.2 Site Conditions

The site is located on the Foskor (Pty) Ltd Richards Bay Plant, approximately 500 meters from the main entrance, at the section of the plant known as Phosphoric Acid Plant. The Tenderer is deemed to have viewed the site and to have thoroughly acquainted himself with the extent, nature and conditions affecting the work to be done before submitting his tender.

Access to the area is having obstructions of nearby reactor, conveyor, and other services in the area, however the Contractor must take note that unexpected gas leaks, acid leaks and sludge leaks, however if there is any will take priority for containing of these and returning to a safe working condition.

It will be imperative for the successful Tenderer to liaise with 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 always doing their routine maintenance and daily duties in the area.

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.7.3 Services which are known to exist on the site

The following services exist on the site:

- Power cables
- Process air and process water
- Process spillages

7.3.1 Foskor Supplied Services

Foskor (Pty) Ltd shall be responsible for:		Applicable:
1	Supply a copy of the relevant Foskor Procedure Specification(s).	refer C.3
2	Supply a copy of reference drawings if required.	refer C.6
4	Provide access to electricity connection points <ul style="list-style-type: none"> Any connection and consumption will be monitored by Tenderer and verified by Foskor on defined intervals (usually at the beginning and end of contract) 	YES
5	Provide access to potable water <ul style="list-style-type: none"> Connection and consumption would need to be monitored by Successful Tenderer (Contractor) and verified by Foskor on intervals (usually at the beginning and end of contract) defined by Foskor 	YES
6	Provide a suitable area for site establishment for Successful Tenderer (Contractor). <ul style="list-style-type: none"> Successful Tenderer to formally in writing motivates, request and define the area and services it deems necessary for site establishment. Foskor will at its own discretion (if request is approved) allocate a site establishment area, however Foskor can should it deem necessary retract or re-define its approval by giving reasonable notice to the successful Tenderer 	ON REQUEST
7	Provide access to ablutions facilities. (Not change rooms) <ul style="list-style-type: none"> 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 Foskor'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 Foskor at its discretion believe it be necessary. Cost associated with such cannot be claimed from Foskor (Pty) Ltd. 	YES
8	Assist in issuing of work clearances and HIRA certificates.	YES

7.3.2 Successful Tenderer (Contractor) Responsibilities

The successful Tenderer (Contractor) shall be responsible for (inter alia):		Applicable:
1	Supply of own labour, supervision, equipment, specialized manpower and other staff to fulfill the scope of work.	YES
2	Supply suitable (approved) Personal Protective Equipment (PPE)	YES
3	To ensure that all work is reviewed by designated Foskor (Pty) Ltd representative at all stages and/or agreed milestones of the project. All work	YES

The successful Tenderer (Contractor) shall be responsible for (inter alia):		Applicable:
	completed needs to be inspected and approved by the designated Foskop representative (e.g., Project Supervisor/ Manager)	
4	After installation/construction and commissioning the successful Tenderer shall conduct final inspection of all work together with designated Foskop (Pty) Ltd representative to compile SNAG list.	YES
5	To ensure 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.
- 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.7.4 Certification by Recognized Bodies

Only Tenderers registered with the relevant Board (e.g., Electrical, National Building, etc.) of South Africa in accordance with the Regulations of the Occupational Health and Safety Act will be accepted and permitted to do work under this contract.

C.7.5 Requirement for the termination, diversion, or maintenance of existing services

Only Applies if/where electrical conductors, pipe conduits, electrical transmitters, ducting, or ventilation services are affected. Unless identified as part of the scope, 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.7.6 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
	Qualified Safety Officer with at least a Diploma in Safety Management or SAMTRAC or both	
	Certified and Registered SAIW Welding and Fabrication Inspector Level 2 Inspector	
	ECSA Registered Civil Structural Engineer	
	Civil Engineering – 2CE CIDB Grading	
	Corrosion Protection – Sigma Paint Applicator certificated by Sigma	

C.7.7 Invoicing and Payment

Payment will be made by Foskor (Pty) Ltd, after approval (with consideration for the construction, completion, and defects corrections of the Works) by the Foskor (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 Foskor (Pty) Ltd.'s terms and conditions.

The invoice submitted is to be in a format acceptable to Foskor (Pty) Ltd.'s Project Representative and need 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.7.8 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.7.9 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.7.10 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.7.11 Claims: Extension of Time for Completion, Additional Payments or Compensation

C.7.11.1 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.7.11.2 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.7.12 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,

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

C.7.13 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 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.8 Foskor Safety Documents to be submitted, Environmental and Site Management

C.8.1 SHREQ Requirements

The successful Tenderer will be required to comply and ensure continuous compliance with Foskor standards and national regulations:

- Compliance with COP6 (Contractor Management).
- Compliance and signing of Section 37(2) Agreement in terms of the OHSAct at the Foskor (Pty) Ltd Safety Department.
- Compliance with Legislation requirements which includes the OHSAct, NEMA (National Environment Management Act) and other relevant applicable Legislation.
- Copy of requirements available from Foskor SHREQ Department.
- The contractor to compile a safety plan for the work to be done by the contractor.
- The contractor must appoint a qualified Safety Officer with at least a Diploma in Safety Management or SAMTRAC or both either on a full-time or part-time basis to conduct the following responsibilities:
 - Conducts 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 be communicated to the Safety Department before starting with the work except for emergency breakdowns.

C.8.2 Environmental Management Specifications

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.9 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.9.1. 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 always wear Foskor minimum required PPE 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 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 (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 FOSKOR (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 FOSKOR (Pty) Ltd Safety Department before any work commences.
- i. The Contractor's vehicle when entering the Plant must have rotating orange lights on at all times.

- j. The Contractor and their employees must undergo a full medical at the approved registered institution. 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 at Foskor (Pty) Ltd Clinic on 035 902 3287.
- k. A once-off fee is also required for access cards from Foskor Security. Please contact the Foskor (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 the 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.10. 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.A

C.11. 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.11.1 Quality Control:

- i. A detailed QCP (Quality Control Plan) shall be submitted within 3 days of contract award.

- ii. Quality of work must be monitored and controlled at a high level at all times.
- iii. At each hold point, work shall be suspended until the specified inspection has been completed and the QCP updated and signed accordingly by personnel concern
- 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.
- vi. Upon completion of the project, The Tenderer to submit a **three** Data Book (three hard copies and one memory stick), containing Quality Control Plans, Release Certificate, Manufacture's Data Report, Design Calculations, As Built Drawings, Foskor Resident AIA Inspection Report, Material Identification Sheet, Material Certificate, WPS & PQR, Welder Qualifications Certificate, Welding Consumables, Radiographic Test Report, Liquid Penetrant Testing, Magnetic Particle Test Report, Eddy Current Testing Report, nondestructive testing(NDT) Procedures, NDT Qualifications Procedures, Pressure Test Report, Name Plate Facsimile, Weld Map, Approved Drawings.

Section D – Reference Drawings, Bill of Quantities, TEV, Acid Carbon Bricks Specification, Rubber Lining Specification and Phos Plant Baseline Risk Assessment