

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

Tender no: FTP /24/MN

Cost Code:

Revision¹: 0.1 see legend at bottom of page

Revised date: 07/11/2024

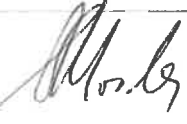
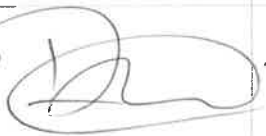

NAME	TITLE	Empl. no	SIGNATURE	DATE
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COMPILED - RECOMMENDATION

Lerato Raphiri	Process Engineer	504826		22 Jan 2025
Siyabonga Gumede	Project Supervisor	505555		22 Jan 2025

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.

Sagie Moodley	Snr. Manager Phosphoric Acid Plant	- 504385		22.01.25
Itumeleng Mthethwa	Snr. Manager Granulation Plant	- 503493		22/01/25
Precious Buthelezi	Snr. Manager - Sulphuric Acid Plant	22171		22/01/25

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.

APPROVAL TO PROCEED

Ramo Moroeng	Snr. Manager Projects	865219		22-01-2025
Ntsikelelo Lukope	Snr. Manager Technical & CI	803496		22/01/2025
Sam Mbuyazi	GM Acid Division	500441		23/01/2025
Comments:				

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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 consist of **Engineering Design, manufacture, supply and installation of 7 autosamplers.**

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

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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 /24/MN	
Contract Title:	Engineering Design, fabrication, supply and install 7 autosamplers	The Manager Procurement FOSKOR LIMITED 21 John Ross Parkway Richards Bay
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 Foskor (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.
- Foskor 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:

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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 **Foskor, 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:

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

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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

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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 person¹ 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 p

From Bill of Quantities – if applicable or a qty x rate = ZAR

1.0 SUB TOTALS:

1.01	Preliminary and General		A1
1.02	Engineering Design		A2
1.03	Execution		
1.04	Commissioning and Close-Out		
Sub Totals Sum (<u>Excluding</u> VAT)			A3

2.0 Add: VAT 15% D

3.0 Total Tender Sum (Including VAT) A4

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- B1.1** In the event of there 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.
- 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

at

Signatur

e

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)

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**Commencement of Engineering design and
Construction**

10 weeks from appointment date

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 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)

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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; Defects Liability Period

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 Defects Liability 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.2.3 Table with Milestones to be Submitted

Using the critical path items from the program 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				
Electrical Engineer/Technologist				
Mechanical Engineer/Technologist				
Process Engineer/Technologist				
Quality Assurance and Control				
Construction Manager/Supervisor				

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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 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.

Item No.	Category	Rate per Hour in Rands		
		Normal	Overtime	Sundays and PPH

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B.6 Schedule of Disbursements of the Works

The Contractor must 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 must 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.

Item No.	Category	Rate per Hour in Rands		
		Normal	Overtime	Sundays and PPH

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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: _____

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ON BEHALF OF: _____

DATE: _____

AS WITNESS: _____

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Section C: SCOPE OF WORKS**C.1. Background, Present Situation and Proposed Solution****C.1.1 Background**

Autosamplers are automated devices mainly used in chemical and mining industries to collect and prepare samples for analysis. These devices ensure consistency and precision in sample handling and in reducing human error. Autosamplers are essential in environments where large volumes of samples need to be processed efficiently and where accuracy and reproducibility are critical.

Poor sampling techniques results in inaccurate measurements of analysis leading the company to making decisions based on inaccurate results. In most cases re-sampling is required to verify results from manual sampling resulting in wasted resources and time consumed. Foskor currently does not have autosamplers in any part of their process and it would be beneficial to install them for business continuity by providing reliability and accuracy in results used for business decisions.

C.1.2 Present Situation

The areas noted for autosamplers are the **granulation plant** for the final product MAP, the **phosphoric acid plant** for incoming rock (new and old plant), and the **sulphuric acid plant** for incoming sulphur and for **effluent** (gypsum and buoyant streams). With all seven (7) sample points, the designated operator's sample at different intervals. The sampling techniques currently used for the solid product/raw material is either using a sample scoop or a grab sampling technique where the sample gets scooped from the conveyor belt; and the for the liquid, the operators use a 500ml bottle to collect liquid sample product/effluent from a running stream. These methods of sampling are not well represented due to

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variabilities of the human factor and introduce inconsistencies due to the varying times at which samples are taken.

Safety of persons carrying out the manual sampling process is compromised due to ergonomics challenges in various sampling points, and in addition the whole process is conducted while the conveyor is in motion which is a safety risk of working in close proximity to conveyors, as conveyors are classified as high-risk equipment.

C.1.3 Proposed Solution: Reason for this Tender

The proposed solution is to install seven (7) autosamplers, at critical points within the process at various plants, throughout Foskor.

- Three (3) autosamplers for solid dry materials will be installed at the Phosphoric Acid Plant at conveyors C4, C9 and CV950.
- One (1) autosampler for solid dry material will be installed at the Granulation Plant at conveyor C05.
- One (1) autosampler for solid dry material will be installed at the Sulphuric Acid Plant at conveyor CV10.
- Two (2) autosamplers for liquid slurry material will be installed at the effluent/buoyant line and gypsum line respectively.

The proposed solution will eliminate human intervention throughout the sampling process to increase accuracy due to better representation of the sample. Safety challenges of working at close proximity to conveyors and ergonomics challenges will be completely eliminated.

C.1.4 Scope of work Deliverables

This scope of work for the autosampler entails:

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- Engineering design, manufacture, supply and install 7 autosamplers in accordance with conveyor belt (dry material) and piping (slurry material) specifications.
- Engineering design, manufacture, supply and install chute/piping at applicable conveyor belts and pipes.
- Engineering Design, manufacture, supply and installation of 7 electrical control box units as per autosampler requirement and electrical & instrumentation requirements.
- Approved for Construction drawings (AFC) for all engineering disciplines.
- Mechanical and Electrical Data Sheets for equipment.
- Operating & Control Philosophy.
- Construction Bill of Quantities (BOQ) & Bill of Materials (BOM) for all applicable engineering disciplines.
- Project Schedule.
- Construction and installation management.
- Pre-commissioning & commissioning.
- Provision of nameplates for the equipment.
- Training of maintenance and process teams.
- Hand Over documents and signing off.
- Supply of all material, equipment, tools, consumables and trained labour.
- Compliance at all times to the Foskor SHE requirements and permit systems.

The Contractor will be responsible for the manufactured integrity and detailed design of their supplied equipment. Data Pack to be fully inclusive of all checks and certificates required.

The Contractor 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.

All detailed designs and specifications are to be approved prior to final acceptance by Foskor (Pty) Ltd.

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C.2. Legislation, Standards and Codes of Practice

Latest revisions or amendments of the listed codes and specification 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 1123	Flanges	Latest
SANS 10142	The wiring of premises	Latest
SANS 10162	The structural use of steel	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.

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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	Yes
EC1	Installation, Testing and Commissioning of Electrical Equipment	Latest	Yes
FC005	General Earth Works to Plant and Building	Latest	
FD001	Design Criteria for Structures	Latest	Yes
FG001	General Requirements for Projects	Latest	Yes
FL001	Design & Fabrication Criteria for Ladders & Walkways	Latest	
FM001	General Mechanical Specification	Latest	Yes
FM003	Welding of Fabricated Equipment	Latest	Yes

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FM002	Rubber Lining of Vessels and Piping	Latest	
FM003	Welding of Fabricate Equipment	Latest	Yes
FM432	Insulation of Vessels and Piping	Latest	
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	
GM5	Pipe Standards Including Auxiliary Equipment	Latest	Yes
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	
MC001	Corrosion Protection Colour Coding	Latest	Yes
MC002	Scope of Corrosion Protection Richards Bay	Latest	Yes
MC004	General Plant Painting Specification Low Temperature	Latest	
MC006	Repair/Touch-up of Damaged Steelwork	Latest	Yes
MC009	General Plant Protection High Corrosive Areas	Latest	
MC010	Painting Tank Grillage	Latest	
SS-000000-C-006	General specification for concrete construction	Latest	
SS-000000-C-007	Concrete specification	Latest	

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SS-000000-C-012	Grouting	Latest	
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	
DD-000000-S-001	Structural design criteria	Latest	Yes

Where there is contradiction between the Foskor Specification and Legislation, Standards and Codes of Practice, Foskor specifications must 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.

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

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 main works is to provide principal consultant services as per "Guideline for Services and Processes for Estimating Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No.46 of 2000)", latest revision, for the AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS to include the following:

1. Provision for complete engineering design, manufacture, supply and installation of seven (7) autosampler units, including but not limited to electrical & instrumentation requirements.
2. Provision for complete engineering design, manufacture, supply and installation of seven (7) electrical control boxes.
3. Provision for preparation of all As Built Drawings for mechanical and electrical/instrumentation scope.
4. Provision for complete engineering design, manufacture, supply and installation of chute/piping at applicable locations.

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

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

C.5 Plant Data

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

C.6. Drawings and Technical Data

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

C.6.1 Drawings:

SITE PLAN DRAWINGS		
Drawing No.	Title / Description	Revision

C.6.2 Technical Data:

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

Autosampler Technical Data				
Sulphuric Acid Plant Dry Solid Product	Conveyor location		CV10	
	Material Type		Granular Sulphur	
	Cutter Speed	m/s	0.58	
	Belt Speed	m/s	1	
	Belt width	mm	750	
	Material nominal top size	mm	6	
	Percentage moisture	%	<1.5	
	Bulk density	t/m ³	1.28-1.44	
	Throughput	tph	Nominal	Maximum
	170		240	
	Sampler cutter width	mm	30	
	Primary sample increment size/cut	kg/cut	2.44	3.45
	Recommended Sampling Frequency	minutes	15	
	Composite sample per 2 hours	kg	20	28

Granulation Plant Dry Solid Product	Conveyor location		CO5		
	Material Type		MAP Fertiliser		
	Cutter Speed	m/s	0.58		
	Belt Speed	m/s	1.7		
	Belt width	mm	600		
	Material nominal top size	mm	3.35		
	Percentage moisture	%	1		
	Bulk density	t/m ³	1.85		
	Throughput	tph	Nominal	Maximum	
	60		62		
	Sampler cutter width	mm	30		
	Primary sample increment size/cut	kg/cut	0.86	0.89	
	Recommended Sampling Frequency	minutes	15		
	Composite sample per 2 hours	kg	7	7	

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Phosphate Rock Dry Solid Product	Conveyor location		CV950	
	Material Type		Phosphate Rock	
	Cutter Speed	m/s	0.58	
	Belt Speed	m/s	2	
	Belt width	mm	750	
	Material nominal top size	mm	0.2	
	Percentage moisture	%	1	
	Bulk density	t/m ³	1.85	
	Throughput	tph	Nominal	Maximum
	132		200	
	Sampler cutter width	mm	30	
	Primary sample increment size/cut	kg/cut	1.90	2.87
	Recommended Sampling Frequency	minutes	15	
	Composite sample per 2 hours	kg	15	23

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Phosphate Rock Dry Solid Product	Conveyor location		CONV 4	
	Material Type		Phosphate Rock	
	Material Type	Phosphate Rock		
	Cutter Speed	m/s		0.58
	Belt Speed	m/s		2.5
	Belt width	mm		750
	Material nominal top size	mm		0.2
	Percentage moisture	%		1
	Bulk density	t/m ³		1.85
	Throughput	tph	Nominal	Maximum
	132		861	
	Sampler cutter width	mm		30
	Primary sample increment size/cut	kg/cut	1.90	12.37
	Recommended Sampling Frequency	minutes		15
	Composite sample per 2 hours	kg	15	99

Phosphate Rock Dry Solid Product	Conveyor location		Phosphate Rock CONV 9	
	Material Type		Phosphate Rock	
	Cutter Speed	m/s	0.58	
	Belt Speed	m/s	2.5	
	Belt width	mm	750	
	Material nominal top size	mm	0.2	
	Percentage moisture	%	1	
	Bulk density	t/m ³	1.85	
	Throughput	tph	Nominal	Maximum
	132		200	
	Sampler cutter width	mm	30	
	Primary sample increment size/cut	kg/cut	1.90	2.87
	Recommended Sampling Frequency	minutes	15	
	Composite sample per 2 hours	kg	15	23

Gypsum line Liquid Slurry Product	Flowrate: 0 – 1 500m ³ /hr Temp < 50degC Pipe size: 4inch
Buoyant line Liquid Slurry Product	Flowrate: 0 - 450m ³ /hr Temp < 50degC Pipe size: 4inch

All work listed in this scope of work shall be completed in accordance with the latest copies specifications as listed above. It is the responsibility of the Tenderer to ensure that the Tenderer has the latest copies of 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

Guideline Scope of Services

The service provider shall render normal services by carrying out the function of Principal Consultant in a professional and timely manner by executing the following activities as per “Guideline for Services and Processes for Estimating Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No.46 of 2000)”, latest revision, for the **autosamplers - sap, pap and granulation plants**.

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

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 /24/MN** handed out at the site inspection held on (date) _____.

1. Until otherwise notified, Foskor (Pty) Ltd have designated Siyabonga Gumede (Project Supervisor) and Lerato Raphiri (Process Engineer) 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 assist and guide 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 is professionally registered with the relevant board and that he shall carry the necessary professional/construction indemnity insurance cover to the extent of the liabilities contemplated.

C.7.2 Site Conditions

The site is located at **21 John Ross Parkway, Richards Bay**. 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 free of obstructions, however the Contractor must take note that Foskor is an MHI (Major Hazard Installation).

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.

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As it will be deemed that the prevailing conditions have been taken into account 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:

- Water and air pipes.
- Acid pipes.
- Steam pipes.
- Electrical cables and racking.

C.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 motivate, 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 	No

7	<p>Provide access to ablutions facilities. (not change rooms)</p> <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. 	YES
8	Assist in issuing of work clearances and HIRA certificates.	YES

7.3.1 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

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The successful Tenderer (Contractor) shall be responsible for (inter alia):		Applicable:
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 completed needs to be inspected and approved by the designated Foskor representative (e.g. Project Supervisor/ Manager)	YES
4	After installation/construction and commissioning the successful Tenderer shall conduct final inspection of all work together with designated Foskor (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
6	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. 	No
7	Provide access to potable water Connection and consumption would need to be provided and monitored by Successful Tenderer (Contractor)	Yes

Note that concerning above:

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- i. No claims towards losses will be accommodated.
- ii. All items that the Successful Tenderer will bring to Foskor (Pty) Ltd, will be subjected to review and approval by Foskor (Pty) Ltd and shall conform to Foskor procedures.

C.7.4 Certification by Recognized Bodies

Only Tenderers registered with the relevant Board (e.g. ECSA, 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 Foskor'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

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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 invoice.

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 the 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.

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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:

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- 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.

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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

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- (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:

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- Compliance with COP6 (Contractor Management).
 - Compliance and signing of Section 37(2) Agreement in terms of the OHSAct No.85 of 1993 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.*

C.8.2 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.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.

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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 prepare a safety plan for the work to be done.
- b. 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 submits audits monthly.
 - Conduct and submit inspections monthly.
 - Compile and submit safety monthly 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.
- c. The Contractor to submit a comprehensive task-based risk assessment that has acknowledged the Foskor baseline risk assessment and method statement.
- d. The Contractor to appoint a full-time Supervisor to manage and supervise all the activities of his/her employer.
- e. All new work activities must have scope of work and communicated to Safety Department before starting with the work with exception of emergency breakdowns.
- f. All maintenance emergency works and consultants are exempted from the above-mentioned safety requirements.

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- g. The Contractor shall ensure all his/her personnel have attended the Safety Induction, by Foskor (Pty) Ltd before they enter the site.
- h. 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 (Halfmask double filter – screw type with filter type A1B1E1K1 – North Safety Product or similar approved product) and goggles (Uvex ultravision – 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.
- i. 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.
 - a. The above requirements are informed by previous incidents picked up during incident investigations and most industries apply this as a best practice to reduce incidents to an acceptable level especially with Lost Time Injury Frequency Rate (LTIFR). Therefore, it is the responsibility of Managers to enforce these safety changes in their areas of responsibility.
 - b. Your cooperation in this regard will be greatly appreciated, this will come into effect as from the 1st of June 2024.
- j. Overalls must be **Blue Sweet Orr overall (80% Ployester 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.**
- k. 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.

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- l. 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.
- m. The Contractor must take safety precautions when working on site.
- n. The Contractor must remove all their equipment within 48 hours after project completion/closure.
- o. A complete safety file to be submitted to Foskor (Pty) Ltd Safety Department before any work commences.
- p. The Contractor's vehicle when entering the Plant must always have rotating orange lights on.
- q. The Contractor and their employees must undergo a **full medical at either Foskor (Pty) Ltd's Clinic or Caredoc Richards Bay or their approved by Foskor (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 Nkosazana Nxumalo at Foskor (Pty) Ltd Clinic on 035 902 3267.**
- r. A once-off fee is also required for access cards from Foskor Security. Please contact Foskor (Pty) Ltd Security Reception at 035 902 3267 for information.
- s. 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.

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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).
- c) The Contractor shall fully comply with Covid-19 compliance as part of Section 37(2) of the Act.

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.

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 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.

C.12. Summary of Documents to be Submitted with this Tender:

1. Method Statement / Project Execution plan.
2. Priced Bill of Quantities completed in Foskor format.
3. Traceable record of similar previous work undertaken.
4. Valid professional indemnity certificate(s).
5. Schedule and CVs of key personnel (organogram).

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

6. Valid certification of registration with a regulating South African Professional Body.
7. Initial project schedule (Bar/Gantt chart).
8. Site Inspection Certificate.

Section D – Bill of Quantities



PROJECT NAME: AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

PROJECT NUMBER:

CONTRACT NUMBER:

PROJECT SUPERVISOR: Lerato Raphiri

PROJECT CLIENT: SAP, PAP AND GRANULATION PLANTS

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Design, Supply, Installation, Commissioning and Training for AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANT: As defined in the Scope of Work			<u>Per item</u>	
P&G	Preliminary and General: Any other costs associated with the project (Please provide a detailed breakdown on a separate sheet)	Sum			R
1	Engineering Design				
	1.1 Engineering Design - Solid dry product (PAP, SAP and Granulation)	Sum			R
	1.2 Engineering Design - Liquid slurry product (Effluent & Gypsum Lines)	Sum			R
	Engineering design & Project Management - should include all relevant discipline-specific documents.				
2	Supply & Execution				
	2.1. Autosampler - Solid dry product (PAP, SAP and Granulation)				
	2.1.1 Manufacturing and supply of autosamplers				
	2.1.1.1. SAP Autosampler	Sum			R
	2.1.1.2. PAP Autosamplers	Sum			R
	2.1.1.3. Granulation Autosampler	Sum			R
	2.1.2 Delivery/transportation	Sum			R
	2.1.3 Electrical & Instrumentation requirements	Sum			R
	2.1.4 Installation requirements	Sum			R
	2.1.5 Rigging methodology	Sum			R
	2.2. Autosampler - Liquid slurry product (Effluent & Gypsum Lines)				
	2.2.1. Manufacturing and supply of autosamplers				
	2.2.1.1. Effluent line	Sum			R
	2.2.1.2. Gypsum line	Sum			R
	2.2.2 Delivery/transportation	Sum			R
	2.2.3 Electrical & Instrumentation requirements	Sum			R
	2.2.4 Installation requirements	Sum			R
	2.2.5 Rigging methodology	Sum			R
3	Commissioning and Training				
	3.1 Commissioning and handover documents	Sum			R
	3.2 Training	Sum			R
TOTAL :					

Tender Signature and Company Stamp:

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS



PROJECT NAME: AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

PROJECT NUMBER:

CONTRACT NUMBER:

PROJECT SUPERVISOR: Lerato Raphiri

PROJECT CLIENT: SAP, PAP and Granulation Plant

PROJECT PHASE : TIME ALLOCATION

STAGE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Process Engineer	hr			
	Mechanical Engineer	hr			
	E&I Engineer	hr			
	Engineering Manager	hr			
	Contract Manager / Project Manager	hr			
	Construction Manager / Supervisor	hr			
	Quality Inspector	hr			
	Technician	hr			
	Design Draughtsman	hr			
	Overhead factor	hr			
	Mark-up on outsourced services	hr			
	Other: (Please provide a detailed breakdown on a separate sheet)	hr			
TOTAL :					

Tender Signature and Company Stamp:

SCOPE OF WORK FOR AUTOSAMPLERS - SAP, PAP AND GRANULATION PLANTS

