

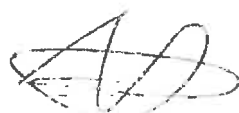

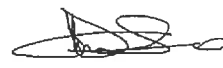


FOSRBY - RFP - 05 - 24/25

SCOPE OF WORK FOR THE SULPHURIC ACID PLANTS AIR FILTER MANAGEMENT PROGRAMME

Tender no:

Revision¹: 2.0 see legend at bottom of page

Revised date: 13/02/2024

NAME	TITLE	Empl. no	SIGNATURE	DATE
COMPILED - RECOMMENDATION				
Anthony Tloubatla	Production Engineer	504694		11/06/2024
APPROVAL TO PROCEED				
Precious Buthelezi	Snr Production Manager	22171		12 June 2024
Charles Mavuso	Snr SHREQ Manager	504688		13 June 2024
Ntsikelelo Lukope	Technical Services & CI Manager	503496		
Sam Mbuyazi	GM Acid Division	500441		14/06/2024

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1.1. Confidentiality

The Bidder shall not disclose any such information or specification, whether explicit or implied, to any third party without the express written permission of a duly authorized representative of FOSKOR.

Any bidder electing not to respond to this Request for Tender (RFT) shall ensure that the original correspondence and / or electronic media are returned to FOSKOR.

1.2. Conditions and Undertaking

The terms set out here are for recording the basis of the principles and topics upon which the parties will be required to reach agreement in concluding on the proposed agreement. It shall not be binding until they are incorporated into a comprehensive formal and final contract agreement signed by both parties.

Tenderers are required to submit full technical and support documentation of their proposed course of action where necessary. The tenderer accepts Foskor's minimum standard in terms of quality and specification. The costs incurred in preparing the tender are for the account of the Tenderer. Foskor (Pty) Ltd will not accept liability for the costs arising out of the delay in the Tender process.

The Tenderer must guarantee the validity of the response to this tender enquiry. Any arithmetical errors in pricing are the Tenderers responsibility. A contract will be signed by the preferred tenderer, after which the terms and conditions of the contract will govern them. If the Tenderer defaults, the Client, Foskor (Pty) Ltd, will have recourse in terms of the conditions as stipulated in the contract.

1.3. Background to Scope of Work

Sulphuric Acid C plant produces 3000MT/Day of Sulphuric Acid. The old sulphuric plants (A&B-plant) produce 3600MT/Day of Sulphuric Acid. To achieve this level of production, the C-plant needs clean air at 249 000 m³/hour and A&B-plant 150 000 m³/hour each.

Clean air is achieved in A&B-plant by filtering atmospheric air using a set of 84 of Primary Glass Fibre Filter Pads (Size in mm:(595x595x50) and Secondary Bag Filters (Size in mm:(595x595x600).

Clean air is achieved in C-Plant by filtering atmospheric air using set of 84 Primary Fibre Glass Pads (Size in mm(595x595x50), and 84 No of Secondary Frame Filters (Size in mm: 594x594x292). These filters remove all the impurities in the air, before it enters the Drying Tower where it is dried, using 98.5% Sulphuric Acid flowing counter current to the air flow. The filter pads for the air compressor building – Size in mm 600 x 600) of 12 panels.

In an acid plant, air filters are intended to clean inlet air for the process stream to protect the main compressor, catalyst, and the process system from damage due to fouling, erosion or contamination.

1.4. Scope of Work

The goals of this contract are as follows:

- Remove existing exhausted /damaged air primary filter pads and secondary bag filters on Sulphuric A&B Plant.
- Remove existing exhausted /damaged air primary filter pads and secondary cartridge filters in Sulphuric Acid C-plant.
- Supply and install the suitable air filtering media for Sulphuric Acid A, B and C-plant.
- Remove existing exhausted /damaged filters pads in the air Compressor building.
- Supply and install the suitable air filtering media in the air compressor building.
- Conduct monthly Inspection on the supplied air filtering media.

- A three-year contract will be given to the successful vendor, which will be reviewed at the end of every twelve months.

The below is applicable to all three sulphuric plants:

- Supply and installation of 84 primary Filter pads and 84 Secondary Bag Filters for A&B Plants, every three months, or as and when they are needed.
- Supplier to recommend suitable air filtering system for A&B plant.
- Supply and installation of 84 of Primary Filter Pads and 84 Secondary Cartridge Filters on C-Plant or equivalent approved, every three months, or as and when they are needed.
- Supply and install air filter in Compressor house – every three months, or when required.
- System to be installed in current set-up with minimum modifications.
- The supplier must use calibrated equipment to monitor all filters every two weeks or when asked to monitor within the two weeks interval and submit a technical report on the condition of both sets of filters, and the performance of the air handling unit monthly.
- The supplier must always be available if needed urgently at any time of the day.
- The Supplier must ensure that stock is readily available, in the event of an emergency replacement, and to avoid lead times.

1.5. Filters Specifications

The filter media shall exhibit the following features:

- Replaceable.
- High cleaning efficiency.
- High dust holding capacity.
- Acid resistant.
- High resiliency and flexibility
- Wind temperature range: Storage: 10°C to 45°C
 Operating: 10°C to 50°C

Current Specifications

Requirement	A& B Plant Primary Filter M125 pad	A&B Plant Secondary Dripak F7 Bag Filter	C-Plant Primary Filter M125 pad	C Plant Secondary Duracel XL 90 Cartridge Filter
Filter Media	Fibreglass	Fibreglass	Fibreglass	Fibreglass
Initial Resistance	75 Pa	75 Pa	157 Pa	157 Pa
Final Resistance	250 Pa	450 Pa	250 Pa	635 Pa
Burst Pressure	-	-	6350 Pa	6350 Pa
Size, L x W x H (mm)	595 x 595 x 50	595 x 595 x 600	595 x 595 x 50	594 x 594 x 292
Max Air Volume Through Each Filter (m ³ /hour)	3 400	3 400	4250	4 250
Dust Holding Capacity	1.4 Kg	1.4 Kg	1.74 Kg	1.74 Kg
Average Arrest	89%	-	91%	-
Average Dust Spot Efficiency	-	80-90%	-	80-90%
Number of Pads	108	-	84	-
Number of Panels / Cartridges	-	108	-	84

1.6. Hoisting Equipment

Foskor Richards Bay takes on the responsibility of providing a hosting equipment for the movement of the filters from the ground to the elevated areas and vice versa. Any delays or deviations from specified schedule for the hosting equipment usage will be at the cost of the supplier's account.

1.7. Housekeeping

The used filters that are removed must be put in used boxes and put into the skips provided. In case of unavailability of skips, the used filters must be packed neatly next to the inlet filter unit platform. Foskor Ltd will be responsible for the skip's disposal from site.

1.8. Pricing

- **PRICES MUST BE VALID FOR A YEAR, BEING A MAINTENANCE CONTRACT.**
- The provisional bills of quantities must be priced accordingly, any exclusions must be clearly stated

1.9. SHE Requirements

The supplier's labour coming to Foskor for monitoring or removal of used filters and installation of new filters must adhere to the following Foskor Policies and Procedures:

- The contractor shall comply with all Foskor Regulations and Safety Standards.
- The contractor shall comply with the OHS Act (85 of 1993).
- The contractor must submit a safety plan that complies with Foskor's safety standards
- **The contract workers must wear the prescribed (by Foskor) acid resistance clothing with a company logo and must carry safety equipment (emergency escape respirator) always.** If a worker is found on site without the above-mentioned safety clothing, he will be removed from site and will not be allowed to return.
- The Contractor will keep the site clean of scrap and rubbish daily.
- The Contractor must renew his clearance certificate every day before work start and sign off at the end of each shift at the Sulphuric Acid Control Room.
- Compliance with relevant Code of Practice*, including but not limited to:
 - COP 82 Waste Management
 - COP 6 on Control of Construction Work
- Submittal and Approval of Safety File to the SHREQ department before site establishment
- Signing of a Section 37(2) Agreement in terms of the OHS Act
- Compliance with Legislation requirements which includes the OHS Act, NEMA (National Environment Management Act) and other relevant applicable Legislation
- copy of requirements available from Foskor SHREQ Department

1.10. Pre-requisites & Inputs

FOSKOR Richards Bay will supply the successful tenderer with the following:

- Equipment specified above in 1.6
- Availability of duly authorised personnel to represent FOSKOR for this project.

1.11. Document Control and Quality Management

Tenderers are to adhere to Foskor's Quality management system and specifications incorporated in this Tender Document.

1.12. Company Profile

Tenderers are to submit an extensive portfolio indicating their experience and expertise with reference to supply and installation of air filters, more especially to sulphuric acid plants.

1.13. Tender Adjudication

The tender will be made available to Tenderers on the _____. Proposals will be adjudicated on a mix of the following criteria (in no particular order):

- Proposed consulting team
- Approach and methodology
- Track record and experience

1.14. Work Breakdown Structure (WBS)

The Tenderer will be responsible for providing a Gantt chart as well as a breakdown of resources (Labour and material). It is advisable that preliminaries and general are broken down into fixed, time and value related items. This will assist in contract administration. The Tenderer is to note that if they decide on sub-contracting works, no contractual obligation is held between the third company and Foskor (Pty) Ltd. Foskor's contractual obligation is

limited to the Tenderer and the Tenderer is answerable to Foskor in the event of default by the Sub-contractor.

1.15. Tender Acceptance

Note that Foskor is not obligated to accept the lowest tenderer in the tender process.

1.16. Site Visit

Attendance by prospective tenderers is compulsory. It is mandatory that all tenderers are clad in Personal Protective Equipment (PPE) so that they may be allowed into the plant. This includes acid resistant overalls, safety boots, hard hats, earmuffs, emergency escape respirator and safety goggles. Tenderers that have not been to Foskor's premises previously will be required to undergo a Foskor Limited induction entailing having to view a 20 -minute video. Tenderers are advised to arrive at least 30 minutes prior to the site meeting to undergo induction.

Foskor Contacts:

Technical Enquiries:

Sulphuric Acid Production Engineer: Anthony Tloubatla (035) 902 3371 or
Anthonyt@foskor.co.za

Sulphuric Acid Production Manager: Precious Buthelezi (035) 902 3058 or
preciousb@foskor.co.za

Commercial Enquiries:

Procurement --Amanda Poncana (035) 902 3386 orAmandaP@foskor.co.za

The tender closing date is the Tenders must be in a sealed envelope, with the tender number and closing date clearly marked on the outside. Tenders must be deposited in the tender box, situated at Foskor Richards Bay's Main reception, before 12h00 of the closing date

1.17. Bill of Quantities

ELEMENT	UNIT	QUANTITY	PRICE PER UNIT	FREQUENCY PER YEAR	COST PER YEAR
1. A&B Plant Filters					
1.1 * Supply and install primary filter pads	each	84		4	
1.2 Supply and install secondary bag filters	each	84		4	
2. C Plant Filters					
2.1 Supply and install primary filter pads	each	84		4	
2.2 Supply install secondary filter cartridges	each	84		4	
3. Compressor House					
3.1 Supply and install filter Pads	each	12		4	
3.2					
3.3					
4. OTHER					
4.1 Two weekly monitoring and submission of a technical report.	each	1		26	

*Provide a breakdown of each element

END OF SCOPE