

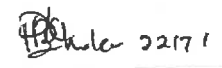
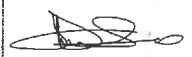
SCOPE OF WORK FOR THE SUPPLY OF SODIUM HYDROXIDE SOLUTION (49-52%) FOR A PERIOD OF THIRTY-SIX MONTHS

Revision!: **2.0** see legend at bottom of page

Revised date: 20/10/2025

| NAME                             | TITLE               | Empl. no | SIGNATURE                                                                          | DATE       |
|----------------------------------|---------------------|----------|------------------------------------------------------------------------------------|------------|
| <b>COMPILED - RECOMMENDATION</b> |                     |          |                                                                                    |            |
| Anthony Tloubatla                | Production Engineer | 504694   |  | 12/12/2025 |

## APPROVAL TO PROCEED

|                    |                                          |        |                                                                                       |            |
|--------------------|------------------------------------------|--------|---------------------------------------------------------------------------------------|------------|
| Precious Buthelezi | Snr Production Manager<br>Sulphuric Acid | 22171  |   | 12/12/2025 |
| Charles Mavuso     | Snr SHREQ Manager                        | 504688 |   |            |
| Musa Xulu          | GM Acid Division                         | 12071  |  | 15/12/2025 |



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**1.1. Confidentiality**

The contractor 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 contractor electing not to respond to this Request for Proposal (RFP) 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.

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

The contractor must guarantee the validity of the response to this tender enquiry. Any arithmetical errors in pricing are the contractor's responsibility. The preferred contractor will sign a contract, after which the terms and conditions of the contract will govern them. If the contractor 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 production at FOSKOR Richards Bay consists of three plants. Two of these plants (A and B plant which produce 1800t/day sulphuric acid) are part of the original design and are jointly referred to as the old section and are identical. The new C plant (producing 2800 t/day) was added later.

The required Sodium Hydroxide solutions are utilized in the demineralization plant and Start-up scrubbers. In the demineralization plant, municipal potable water is treated to render it suitable for use in the boiler plants that form an integral part of the three sulphuric acid plants, and the scrubbers during plant start-ups. The storage capacity on site is 75 tons.

## 1.4. Scope of Work

The goals of this tender are as follows:

Supply of Sodium Hydroxide Solution (49-52%) for use in the sulphuric acid plants, with the following specifications, to the FOSKOR, Richards Bay site:

|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
| Trade/Commercial Name | Sodium Hydroxide Solution (49-52%)                                   |
| Chemical Name         | Sodium hydroxide solution, caustic soda liquor, sodium hydrate, lye) |
| Formula               | NaOH                                                                 |

|                              |                                         |
|------------------------------|-----------------------------------------|
| Assay (wt. % total solution) | : 49.0 – 52.0 %                         |
| Assay, dry wt. Basis (NaOH)  | : 97% to 103% wt.                       |
| Appearance                   | : Colourless, water white, soapy liquid |
| Sodium Carbonate (ppm)       | : Max 500                               |
| Sodium Sulphate (ppm)        | : Max 100                               |
| Sodium Chloride (ppm)        | : Max 100                               |
| Sodium Chlorate (ppm)        | : Max 30                                |
| Iron (ppm)                   | : Max 3                                 |
| Silica (ppm)                 | : Max 5                                 |
| Nitrogen Compounds (as N)    | : 0.001% Max                            |
| Phosphate (PO <sub>4</sub> ) | : 0.001% Max                            |
| Sulphate (SO <sub>4</sub> )  | : 0.001% Max                            |
| Ammonium Hydroxide           | : 0.010% Max                            |
| Heavy Metals (as Pb)         | : 0.002% Max                            |
| Lead (Pb)                    | : 10 mg/kg Max                          |
| Potassium (K)                | : 0.003% Max                            |
| Nickel (Ni)                  | : 0.001% Max                            |
| Mercury (Hg)                 | : 1 mg/kg Max                           |
| Arsenic (As)                 | : 3 mg/kg Max                           |

Sulphuric Acid Plant uses an average of 200-250 tons of Sodium Hydroxide per month, the usage can peak up to 300 tons per month.

## SCOPE REQUIREMENTS

- ✓ Supply average of 250 tons of Sodium Hydroxide solution per month.
- ✓ Supply 30 tons of Sodium Hydroxide within 48 hrs after the order has been placed.
- ✓ In case of an emergency the supplier must be able to supply 60-120 tons, of which 60 tons must be supplied within 12 hrs.
- ✓ The supplier will be notified once the internal stock has reached 50 tons and the 30 tons delivery must be expected within 48 hrs.

## 1.5 Off-loading Equipment

Foskor Richards Bay takes on the responsibility of providing the supplier with offloading pump and safety shower. It is supplier's responsibility to provide off-loading pipe, the pipe specification is a 3-inch reinforced or irrigation pipe with a male coupling on the pump side. Deliveries are only to be made during normal working hours (7:30am to 16:30pm) unless there is an emergency.

### Offloading Procedure: CTP SC 029 – OFF LOADING PROCEDURE OF NaOH ROAD TANKERS

- 1) The process operator must complete the NaOH Offloading Checklist before, during and after offloading NaOH Road Tanker.
- 2) Once the sample result is received from the lab and the result is acceptable (49-52%) strength, the offloading can commence.
- 3) The Driver must couple the offloading hose onto the Tanker discharge line and the process operator must couple the offloading hose to the NaOH pump suction side and then open the suction valve.
- 4) The Production Supervisor after signing the offloading checklist and satisfied that all is as per procedure: must authorize offloading by signing the delivery document presented by the driver. The Driver then opens the Tanker top hatch and discharge valve. The operator is to ensure that couples are locked in position and that no people are in the area.

- 5) The process operator starts the NaOH pump and takes a sample from the sample valve on the NaOH sump suction line.
- 6) Transfer NaOH until the Tanker is empty.
- 7) Driver has to do visual checks to determine the level of the Tanker.

## **Driver Requirement**

The driver must have the hazardous chemical transport certificate.  
Driver to wear all FOSKOR approved required PPE listed on the PPE memo.

## **Truck requirement**

Tanker truck which carries minimum load of 30 tons  
The truck must have the reflector chevron  
The truck must have board that shows the UN number for the chemical load

## **1.6 Pre-requisites & Inputs**

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

- Availability of duly authorised personnel to represent FOSKOR for this project
- FOSKOR technical specifications

## **1.7 SHREQ Requirements**

Tanker driver must wear all required PPE during the offloading of sodium hydroxide from the tanker to the FOSKOR storage tank. The tanker driver must wear the prescribed (by FOSKOR) acid resistance clothing with a company logo and must carry safety equipment (emergency escape respirator) always "PPE memo". Driver must be fully aware about the chemical being transported and handled. All the FOSKOR's SHREQ policies to be followed for driving the tanker inside FOSKOR premises and offloading of the chemicals. "Refer to COP 6 Contractor Management "

## **1.8 Document Control and Quality Management**

Contractor are to adhere to FOSKOR's quality management system and specifications incorporated in this RFP Document.

## **1.9 Technical evaluation requirements**

Proposals will be adjudicated on a mix of the following criteria (in no particular order):

- Technical suitability /conformance to specification (see 1.4)
- Track record and or reference letters
- Lead times
- ISO 9001 and 14001
- Product samples for lab test
- Site visit
- Proven experience on caustic supply and references
- Contractor to provide procedure and certificate for transportation of Hazardous chemicals.
- Provide Safety data sheet
- Product Certificate of analyses

Note: The Contractor 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 Contractor, and the Contractor is answerable to Foskor in the event of default by the Sub-contractor.

## 1.11 Bill of Quantities

| Description                        | UoM  | Frequency | Qty | Price per Unit | Total Cost |
|------------------------------------|------|-----------|-----|----------------|------------|
|                                    |      |           |     |                |            |
| Sodium Hydroxide Solution (49-52%) | Ton  |           |     |                |            |
| Transportation                     | Km   |           |     |                |            |
| Offloading Labour cost             | Hour |           |     |                |            |
|                                    |      |           |     |                |            |
|                                    |      |           |     |                |            |

\*Submission of a product data sheet with the tender is compulsory

**END OF SCOPE**





Signed with Impression - Chain of Custody



#### Signature Request

|                       |                                      |                 |                         |
|-----------------------|--------------------------------------|-----------------|-------------------------|
| Signature Request ID: | 36b8c51b-6f5e-4ed5-9b9a-b31292cba008 | Timestamp:      | 2025-12-12 08:06:03 GMT |
| Signee Name:          | Mr charles Mavuso                    | Sender Name:    | Anthony Tloubatla       |
| Request Type:         | WebSigning                           | Request Status: | WEBVIEWER SIGNED        |

#### Original Document

|                |                        |                |          |
|----------------|------------------------|----------------|----------|
| Document Name: | SKM_28725121209570.pdf | Document Size: | 257.2 KB |
|----------------|------------------------|----------------|----------|

#### Email Evidence

|                       |                            |                         |                                                          |
|-----------------------|----------------------------|-------------------------|----------------------------------------------------------|
| Signee Email:         | charlesmav@foskor.co.za    | Email Subject:          | A document from Anthony Tloubatla is ready for signature |
| Email Sent Timestamp: | 2025-12-12T08:03:47.328674 | Email Opened Timestamp: | Not available in Silent Mode                             |

#### Web Evidence

|                         |                                                                                                                                   |                           |                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|
| Signee IP Address:      | 41.121.177.162                                                                                                                    | Request Timestamp:        | 2025-12-12 08:04:47 GMT |
| Signee GPS (if shared): | ZA: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/143.0.0.0 Safari/537.36 Edg/143.0.0.0 | Terms Accepted Timestamp: | 2025-12-12 08:04:55 GMT |

#### Annotations and Modifications

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|------------------------|---|---------------------------|---|
| Signature Count:       | 1 | Form Fields Filled Count: | 0 |
| Text Annotation Count: | 2 | Initial All Pages Count:  | 0 |
| Single Initial Count:  | 0 |                           |   |

#### Signing Evidence

|                     |              |                   |                                      |
|---------------------|--------------|-------------------|--------------------------------------|
| Signee Mobile:      | +27780488380 | Sign Type:        | WebSigning                           |
| Security Challenge: | NONE         | Part of Workflow: | 1cbe214c-828a-47bc-8078-0166b502d968 |

#### Chain Of Custody Generation

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