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RFQ Number	NLM-QUO-25/069
Request for Quotation Date	05 June 2025
RFQ Closing Date	17 June 2025
RFQ Closing Time	17:00
Compulsory Site Briefing	Not compulsory but if more information required can be arranged
Contact Person	Catherine Matima
Quotation Validity	90 Days from the closing date
Submission Details	RFQ Response must be sent to: catherine.matima@necsa.co.za
RFQ Description	To supply one moisture trap as per the attached specification sheet

Dear Service Provider

Kindly provide a quotation for goods and or services as outlined in section 2 of this document.

1. Introduction

The South African Nuclear Energy Corporation Limited (Necsa) is a state-owned public company (SOC), registered in terms of the Companies Act, (Act No. 61 of 1973), registration number 2000/003735/06.

The Necsa Group engages in commercial business mainly through its wholly-owned commercial subsidiaries: NTP Radioisotopes SOC Ltd (NTP), which is responsible for a range of radiation-based products and services for healthcare, life sciences and industry, and Pelchem SOC Ltd (Pelchem), which supplies fluorine and fluorine-based products. Both subsidiaries, together with their subsidiaries, supply local and global markets, earning valuable foreign exchange for South Africa and are among the best in their field in their respective world markets.

Necsa's safety, health, environment and quality policies provides for top management commitment to compliance with regulatory requirements of ISO 14001, OHSAS 18001 and RD 0034 (Quality and Safety Management Requirements for Nuclear Installations), ISO 9001 and ISO 17025.

Necsa promotes the science, technology and engineering expertise of South Africa and improves the public understanding of these through regular communications at various forums and outreach programmes to the community. We are a proudly South African company continuously striving, and succeeding in many respects, to be at the edge of science, technology and engineering related to the safe use of nuclear knowledge to improve our world.

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For more information on Necsa, please visit: www.Necsa.co.za

2. Background

Necsa plans to establish a plasma gasification demonstration facility in a laboratory on-site to volumetrically reduce uranium-containing PTFE candle filters. The moisture trap, Y83153, is installed in the main process off-gas line from the wet KOH scrubber, S83123, in the facility to remove any moisture, either in the form of water or scrubbing liquid, above the saturation level in the gas. The position of the moisture trap within the process is reflected in the attached Piping and Instrumentation Diagram (P&ID) [02], with detail given in the attached Specification Sheet [01].

3. Scope of Work

Item Description	Quantity
To supply the required moisture trap, Y83153 as per the attached Specification Sheet [01].	1
All other equipment and components identified in Section 2 and/or shown in the P&ID [02] are outside the scope of work considered here.	

4. Attachments

Ref #	DOCUMENT NAME	DESCRIPTION
01	ENS-FDP-SPE-24044, Rev. 1	Specification Sheet for Moisture trap Y83153
02	ENS-FDP-PID-24003, Rev. 5	PTFE Filter Destruction Project P&ID Diagram – KOH Scrubber System 831

5. Pricing

- All price quoted to include all applicable taxes.
- Price must be fixed and firm.
- Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, disbursements etc.
- Quotation must be completed in full, incomplete quote could result in a quote being disqualified.
- Payment will be according to Necsa's General Conditions of Purchase.

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6. Evaluation

6.1. Phase 1- Functionality Evaluation / Technical Evaluation

Where functional or technical evaluation criterion is applicable, assessment will be performed in terms of the criterion listed below and the criterion may include Technical, Performance, Quality and Risk.

If the Bidder's response to the Technical criteria does not indicate that the Bidder can support an acceptable technical solution, the Bidder's response will be rejected and not evaluated further.

Together the Technical, Performance & Quality and Risk criteria make up the functionality criterion and a Bidder's Proposal will be evaluated for functionality out of a possible 100 points. Only RFQ responses achieving an evaluation score of greater than the set threshold points out of the possible 100 points will be selected to progress to the second stage.

The quotations will be evaluated according to the following selection criteria (based on information requested above):

Item	Requirement	Weight	Points	Criteria
1	ISO 9001: 2015 (or latest) accredited Supplier must provide evidence (ISO 9001 certificate)	25	25	ISO 9001 accreditation of supplier of the required products. OR ISO 9001 accreditation of OEM and OEM letter listing local supplier as authorised supplier and service agent
2	Supplier must provide letter referencing after sales service and maintenance	25	25	Supplier have a service and repair workshop Supplier holds critical spares as stock items
			15	Supplier have a service and repair workshop
			10	Supplier outsources service and repair
3	Supplier lead-time Supplier must specify lead-time	25	25	Product available within 4 weeks of issue of Purchase Order
			15	Product available within 6 weeks of issue of Purchase Order
			10	Product available within 8 weeks of issue of Purchase Order

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Item	Requirement	Weight	Points	Criteria
4	Suitability of Product	25	25	Supplier adequately demonstrates how the recommended product meets the user's requirements or specifications
Total		100		

6.2. **Phase 2 - Evaluation In Terms Of Preferential Procurement Policy Framework Act, 2022**

This bid will be evaluated and adjudicated according to the 80/20 point system, in terms of which a maximum of 80 points will be awarded for price and 20 points will be allocated based on the specific goals (B-BBE status level).

	POINTS
PRICE	80
SPECIFIC GOALS (B-BBEE status level)	20
Total points for Price and SPECIFIC GOALS	100

Preference goal
B-BBEE status level contributor

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2

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Non-compliant contributor	0
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7. Required Documentation

- Tax Clearance Certificate (Tax pin issued by SARS)
- Declaration of interest (SBD 4)
- BEE Certificate / Applicable Affidavit if classified as EME
- Letter of Good Standing (COID) only if Applicable due to the nature of work required
- Any other document or certification that might have been requested on this RFQ

8. Important

- 8.1. Quotation must be submitted on or before the RFQ closing date and time stated above.
- 8.2. Orders above R 30 000 will be evaluated according to the PPPFA 80/20-point system and a functionality scorecard where applicable and the ones above R 1 Million will be subjected to the tender process.
- 8.3. This RFQ is subjected to the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC) and, if applicable, any other legislation or special conditions of contract.
- 8.4. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for specific goals are not claimed.
- 8.5. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to specific goals, in any manner required by the purchaser.
- 8.6. For a Bidder to obtain clarity on any matter arising from or referred to in this document, please refer queries, in writing, to the contact details provided above. Under no circumstances may any other employee within Necsa be approached for any information. Any such action might result in a disqualification of a response submitted in competition to this RFQ.
- 8.7. No goods and/or services should be delivered to Necsa without an official Necsa Purchase order.
- 8.8. Necsa reserves the right to; cancel or reject any quote and not to award the RFQ to the lowest Bidder or award parts of the RFQ to different Bidders, or not to award the RFQ at all.
- 8.9. The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any Necsa employee or its representatives. Such an act shall constitute a material breach of the Agreement and the Necsa shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights

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- 8.10. By responding to this request, it shall be construed that: the bidder, hereby acknowledge to be fully conversant with the details and conditions set out in the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC), Technical Information and Specifications attached, and hereby agree to supply, render services or perform works in accordance therewith.

ENGINEERING SERVICES DEPARTMENT



MOISTURE TRAP SPECIFICATION SHEET

Project	PTFE Filter Destruction Project		Unit Tag Number		Y83153	
Datasheet Document No.	ENS-FDP-SPE-24044		Revision		1.0	
Description	Moisture trap Y83153 is installed on the process off-gas line 100-831-GOVP-023, downstream of the wet scrubber S83123 in the PTFE Filter Destruction Facility to remove any moisture, either in the form of water or as scrubbing liquid, above the saturation level in the gas.					
Plant location	Necsa, Pelindaba, North-West Province.					
Equipment location	PTFE Filter Destruction Facility - Inside secondary enclosure Y82020 in Laboratory-131, Building V-H2.					
Safety Classification	SC-2(C) and SC-3(N)					
Quality Classification	QC-2(C) and QC-3(N)					
Fluid ^{Note 1}	Scrubber off-gas containing CO ₂ , HF, O ₂ and N ₂ ^[3] , with traces of moisture.					
Fluid state	Gas					
Solid content	Possible PTFE and solid uranium compound particulates.					
Corrosive due to	Hydrogen Fluoride (HF) gas - produced at 7.92 g/h ^[2] .					
FLUID PROPERTIES						
PARAMETERS	UNITS	MINIMUM			MAXIMUM	
Operating temperature	°C	44,2 ^[3]				
Operating pressure	kPa (g)	-7,9 ^[4]				
Mass flow rate	kg/h	4,64 ^[2]			22,1 ^[2]	
Volume flow rate	m ³ /h	5,46			18,3	
Moisture content	g/h				10,7 ^{Note 3}	
Density	kg/m ³	0,85			1,21 ^[4]	
Viscosity	Pa.s	2,10E-02			1,7E-05 ^[4]	
Specific heat capacity (C _p)	kJ/kg.K	1,02			0,63 ^[5]	
Allowable pressure drop	kPa	1 ^[4]				
MECHANICAL & ELECTRICAL PROPERTIES						
Pipeline Size	100 NB, SCH 40					
Material of Construction						
Body Material	SS, ASTM A182-F304/304L					
Process Connections						
Outlet	Size	4"	Rating	150#	Flange Spec.	SS, ASTM A182-F304/304L, ASME B16.5
Input	Size	4"	Rating	150#	Flange Spec.	SS, ASTM A182-F304/304L, ASME B16.5
Moisture Trap Type	Electronically operated					
Electrical Supply	kW	Supplier to advise	Volts	Supplier to advise	Phase	Supplier to advise
					Hz	Supplier to advise
REFERENCE DRAWINGS AND DOCUMENTS						
[1] ENS-FDP-PID-24003, PTFE Filter Destruction Project P&ID Diagram - KOH Scrubber System 831						
[2] ENS-FDP-CLC-24014, Mass Balance Calculation for the PTFE Destruction System						
[3] ENS-FDP-CLC-24015, Energy Balance Calculation for the PTFE Destruction System						
[4] ENS-FDP-CLC-24019, Pressure Balance across the PTFE Filter Destruction System						
NOTES						
Note 1: The composition of the exhaust scrubber off-gas changes over time due to chemical reactions which take place in the scrubber. Gas composition (% w/w) is 0.32% CO ₂ , 0.17% HF, 34.83% O ₂ and 64.68% N ₂ at the minimum flow rate, and 79.06% CO ₂ , 0.04% HF, 7.32% O ₂ and 13.59% N ₂ at the maximum flow rate.						
Note 2: Moisture trap to be supplied complete with integrated automatic drain valve, which does not allow release of off-gas during drainage, only moisture.						
Note 3: Estimated to be 5% of water present in feed gas to wet scrubber upstream of moisture trap, taking note that the scrubber also contains an integrated demister to prevent liquid entrainment in the off-gas stream.						

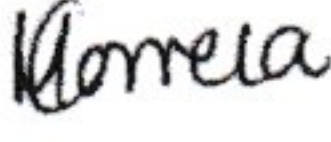
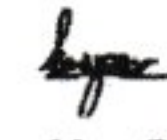
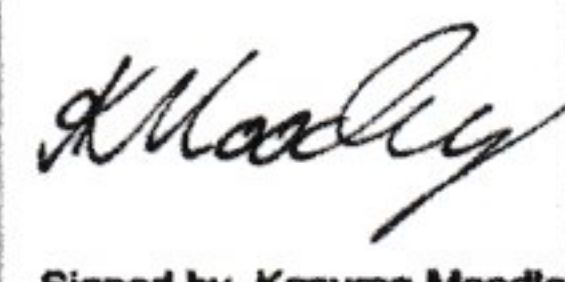
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ENGINEERING SERVICES DEPARTMENT



MOISTURE TRAP SPECIFICATION SHEET

Project	PTFE Filter Destruction Project	Unit Tag Number	Y83153
Datasheet Document No.	ENS-FDP-SPE-24044	Revision	1.0

	Name	Signature & Date
Compiled by	B Khumalo (Senior Process Engineer)	 Signed by Bheka Khumalo, bheka.khumalo@necsa.co.za 10/10/2024 14:37:05(UTC+02:00)
Checked	MB Msane (Mechanical Engineer)	 Signed by Mangoba Msane, Mangoba.Msane@necsa.co.za 10/10/2024 14:39:27(UTC+02:00)
Checked	M Correia (Senior Process Engineer)	 Signed by Michelle Correia, correiam2504@gmail.com 10/10/2024 08:33:28(UTC+04:00)
Checked	G Manuel (Chief C&I Engineer)	 Signed by Grant Manuel, grant.manuel@necsa.co.za 14/10/2024 09:12:58(UTC+02:00)
Checked	S Mngoma (Chief Mechanical Engineer)	 Signed by Sibongeleni Mngoma, Sibongeleni.mngoma@necsa.co.za 14/10/2024 10:45:11(UTC+02:00)
Checked	W van den Berg (Chief Electrical Engineer)	 Signed by Willem Van Den Berg, willem.vandenberg@necsa.co.za 15/10/2024 08:17:12(UTC+02:00)
Approved	K Moodley (Chief Process Engineer)	 Signed by Kasuren Moodley, kasuren.moodley@necsa.co.za 15/10/2024 08:33:54(UTC+02:00)
Distribution	1. ES Records 2. Docman 3. Dr K Moodley 4. Mr D Ngwenya	

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