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RFQ Number	NLM-QUO-25/068
Request for Quotation Date	05 June 2025
RFQ Closing Date	30 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 Cooling Tower as per the attached specification sheets

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,

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technology and engineering related to the safe use of nuclear knowledge to improve our world.

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 facility is serviced by a cooling water system, as shown in the attached Piping and Instrumentation Diagram (P&ID) [01]. The cooling water system is divided into a primary cooling system and secondary cooling system. The primary cooling system recirculates demineralized water directly to the users in the facility for heat removal purposes. The heated demineralized water that returns from the users is then cooled in the heat exchanger, H83236, using process water from the secondary cooling system. The required process water is supplied from a mechanical draft, wet cooling tower, T83234. Upon exiting the heat exchanger, the process water is then recirculated back to the cooling tower, as shown in the P&ID [01]. Details of the cooling tower, T83234, are given in the attached Specification Sheet [02].


3. Scope of Work

Item Description	Quantity
<p>To supply the Cooling Tower, T83234, as per the attached Specification Sheet [02]. This includes the fan, packing and internal components of the cooling tower.</p> <p>All other equipment and components shown in the P&ID [01] and/or identified in Section 2 are outside the scope of work considered here.</p>	1

4. Attachments

Ref #	DOCUMENT NAME	DESCRIPTION
01	ENS-FDP-PID-24004, Rev. 4	PTFE Filter Destruction Project P&ID Diagram – Cooling Water System 832
02	ENS-FDP-SPE-24014, Rev. 2	Cooling Tower Specification Sheet

5. Pricing

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- 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.

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 criteria listed below and the criteria 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

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

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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
Non-compliant contributor	0

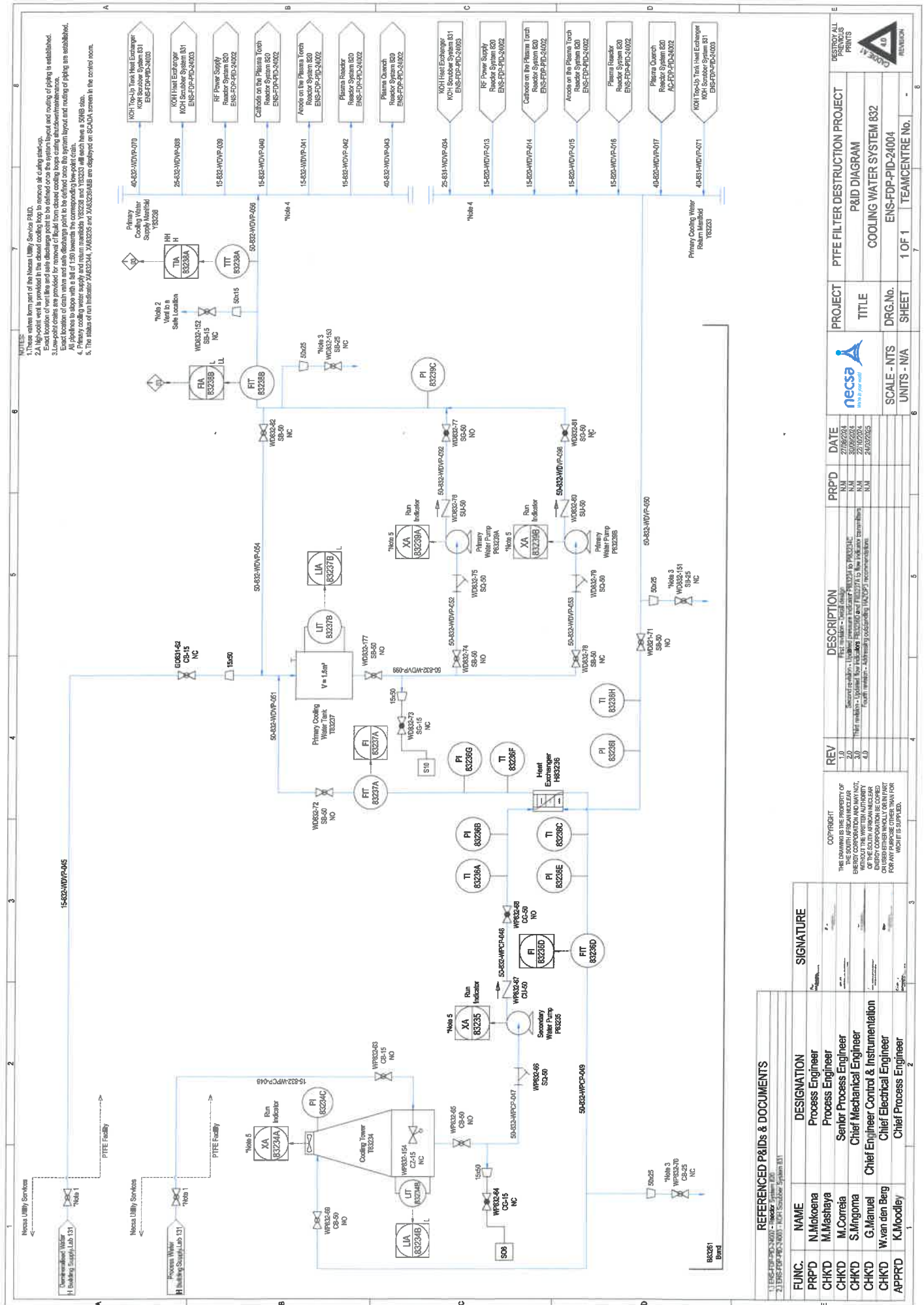
7. Required Documentation

- 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

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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
- 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



COOLING TOWER SPECIFICATION SHEET

Project	PTFE Filter Destruction Project		Unit Tag Number	T83234
Datasheet Document No.	ENS-FDP-SPE-24014		Revision	2
Description	The cooling tower provides process water to the plate heat exchanger H83236 for cooling of the heated demineralized water in the PTFE Filter Destruction Facility. The process water is thereafter recirculated from the heat exchanger back to the cooling tower.			
Equipment Location	PTFE Filter Destruction Facility - Outside Laboratory 131, Building V-H2.			
Plant Location	Necsa, Pelindaba, North-West Province.			
Safety Classification	Non-classified (N) and SC-3 (C).			
Quality Classification	Non-classified (N) and QC-3 (C).			
FLUID PROPERTIES				
Process Fluid	Process water			
Process Water Quality	pH, ≥ 5 to ≤ 9.7 ; Conductivity, ≤ 170 mS/m; Alkalinity, ≤ 1200 mg/L; Cl ≤ 300 mg/L; Hardness, ≥ 20 to ≤ 200 mg/L; Treatment, Chloraminated system [1].			
Solids Content	None (apart from sand, dust, dirt, etc. from the surrounding environment)			
Corrosive Due To	N/A			
PARAMETERS	UNITS	NORMAL	MAXIMUM	
Total Rated Capacity	kW	188 ^[3]	200	
Water Flow Rate	kg/h	16 200 ^[3]	18 000	
Inlet Water temperature	°C	35 ^[3]	40	
Outlet water Temperature	°C	-	25 ^[3]	
Dry-bulb	Summer	°C	32 ^[4]	-
	Winter	°C	2 ^[4]	-
Wet-bulb	Summer	°C	21.6 ^[4]	-
	Winter	°C	- 1 ^[4]	-
Pump Head Required	m	N/A		
DESIGN DATA				
Type of Cooling Tower		Counter-flow mechanical draft wet cooling tower.		
Type of Structure		Supplier to advise.		
Type of Fill		Supplier to advise.		
Basin Depth	m	Supplier to advise.		
Water Inlet Pipe Diameter	mm	50 NB Sch. 40.		
Water Outlet Pipe Diameter	mm	50 NB Sch. 40.		
Make Up Water Pipe Diameter	mm	15 NB Sch. 40.		
Overflow/ Drain Pipe Diameter	mm	Supplier to advise.		
FAN DESIGN				
Fan Drive Type		Centrifugal or axial fan (supplier to advise).		
Fan Wheel Type		Supplier to advise.		
Drive Arrangement		Supplier to advise.		
Bearings		Supplier to advise.		
Guard		Supplier to advise.		
Fan Motor Speed	RPM	Supplier to advise.		
MECHANICAL, ELECTRICAL & GENERAL PROPERTIES				
Electrical Requirements	Volts, Phase and Hertz to be specified according to supplier's datasheets.			
Process Connections	Size: Inlet = 50NB / Outlet = 50NB / Make Up Water = 15 NB. Type: Weld neck flange, RF. Flange Spec.: CS, ASTM A105, ASME B16.5. Class: 150			

Drain and Flow	Valve arrangement in the drain.		
Material of Construction	Piping: Carbon Steel inlet and outlet piping. Frame: Fibre Reinforced Plastic, with sturdy structural hot dipped galvanized steel frame. Nozzle Material: Polypropylene / HDPE.		
Header Fittings	Galvanized / PVC / HDPE.		
Height of Cooling Tower	Supplier to advise. See Note 1.		
Paint on Base Frame	Supplier to advise.		
Noise Criteria	85 Db at 1 m.		
Tag No.	To be marked on cooling tower with black letters. SS Tag to be firmly attached.		
REFERENCE DRAWINGS AND DOCUMENTS			
[1] SANS 241:2015 Standard Limits - Rand Water Supply to Tshwane Municipality Water Quality Report.			
[2] ENS-FDP-PID-24004, Filter Destruction Project - P&I Diagram: Cooling Water System 832.			
[3] ENS-FDP-CLC-24015, Energy Balance Calculation for the PTFE Filter Destruction System.			
[4] ENS-MES-SPE-0003, Uranium Conversion Plant Ventilation User Requirement Specification.			
NOTES			
1) The available space for installation of the cooling tower in the plant (L = 1 m, W = 1 m, H = 2.5 m).			
2) The cooling tower sump shall have a regular ball float valve with a quick fill arrangement linked to the make up water pipe diameter.			
	Name	Signature	Date
Compiled by	N. Mokoena (Process Engineer)		
Process	M. Correia (Senior Process Engineer)		
Mechanical	M. Msane (Mechanical Engineer)		
Mechanical	S. Mngoma (Chief Mechanical Engineer)		
Instrumentation	G. Manuel (Chief C&I Engineer)		
Electrical	W. Van Den Berg (Chief Electrical Engineer)		
Approved by	K. Moodley (Chief Process Engineer)	