

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ-
		Revision	1
		Page	1 of 4

RFQ Number	NLM-QUO-25/113
Request for Quotation Date	25 August 2025
RFQ Closing Date	29 August 2025
RFQ Closing Time	12:00
Compulsory Site Briefing	n/a
Contact Person	n/a
Quotation Validity	90 Days from the closing date
Submission Details	RFQ Response must be sent to: stephanie.kruger@necsa.co.za
RFQ Description	To supply Pulsation Dampener as per the attached Specification Sheets

Dear Service Provider

Kindly provide a quotation for goods and or services as outlined in section 3 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.

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

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-REQ- XXXX
		Revision	1
		Page	1 of 4

2. Background

Necsa plans to establish two plasma gasification demonstration facilities in a laboratory on-site to volumetrically reduce nuclear waste. One facility will process solid, compressible low-level waste and the other will process contaminated waste oil. A Pulsation dampener (Y1013) is filled with nitrogen gas at 600 kPa(g), serving as a cushion to absorb and minimize pulsations from the Oil Feed Pump (P1002). Pulsation dampener (Y1013) is then filled with oil from oil feed pump (P1002) to a pressure of 1000 kPa (g) compressing the nitrogen in the headspace to a pressure of 1000 kPa (g). The nitrogen blanket in the headspace will absorb the pulses that might originate from the operation of the pump. Details of the Pulsation Dampener are given in the attached Specification Sheet (see Ref. 01 in Section 4).

3. Scope of Work

Item Description	Quantity
To supply and deliver to the NECSA site the required Pulsation Dampener, Y1013, as per the attached Specification Sheet [01].	1
NOTE: All other equipment and components identified in Section 2 and/or shown in the P&ID [03] are outside the scope of work considered here.	

4. Attachments

Ref #	DOCUMENT NAME	DESCRIPTION
01	ENS-OWPVR-SPE-25012, Rev. 1	ENS-OWPVR-SPE-25012
02	ENS-OWPVR-PID-24002, Rev. 6	P&ID Diagram – P&ID – WASTE OIL FEED SYSTEM

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, delivery to site, insurance until acceptance, duty where applicable, disbursements etc.
- Quotation must be completed in full, incomplete quote could result in a quote being disqualified.

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ-
		Revision	1
		Page	1 of 4

- 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 criterion listed below and the criterion may include Technical, Performance, Quality and Risk.

If the Bidder's response to the Technical templates 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 and which score a number of points for functionality that is greater than or equal to the set threshold points of the number of points achieved by the highest scoring Bid for functionality will be selected to progress to the second stage.

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ- XXX
		Revision	1
		Page	1 of 4

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 having a service and repair workshop Supplier holds critical spares as stock items
			15	Supplier having 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
4	Suitability of Product <u>Supplier must provide datasheet for the product</u>	25	25	Supplier adequately demonstrates how the recommended product meets the user's requirements or specifications
Total		100		

Formatted: Font: Not Bold

Note: Bidders that score <80 out of 100 in respect of Technical/Functional evaluation criteria will be regarded as submitting a non-responsive bid and will not be evaluated further.

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ-
		Revision	1
		Page	1 of 4

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

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ-
		Revision	1
		Page	1 of 4

- 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

	Request for Quotation	Doc. No	NLM-QUO-25/113FIN-SCM-RFQ-
		Revision	1
		Page	1 of 4

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
PULSATION DAMPENER SPECIFICATION SHEET



Project	Contaminated Oil Waste PlasGas Project	Unit Tag No.	Y1013
Datasheet Document No.	ENS-OWPVR-SPE-25012	Revision	1
Description	Pulsation dampener (Y1013) is filled with nitrogen gas at 600 kPa(g), serving as a cushion to absorb and minimize pulsations from the Oil Feed Pump (P1002). Pulsation dampener (Y1013) is then filled with oil from oil feed pump (P1002) to a pressure of 1000 kPa (g) compressing the nitrogen in the headspace to a pressure of 1000 kPa (g). The nitrogen blanket in the headspace will absorb the pulses that might originate from the operation of the pump.		
Plant Location	NECSA Pelindaba Site: Elias Motsoaledi Street Ext. (Church Street West), R104 Pelindaba, Madibeng Municipality, 0240		
Equipment Location	Oil Waste PlasGas Demonstration Facility - Process area inside Laboratory-150, Building V-H2.		
Safety Classification	SC-3 (N) and SC-2 (C)		
Quality Classification	QC-3 (N) and QC-2 (C)		
Process Fluid	Nitrogen @600 kPa(g) & Waste Oil @1000 kPa(g)		
Fluid State	Gas and Liquid		
Operating Temperature (°C)	25		
Operating Pressure (KPa (g))	1000		
Solid content	N/A		

FLUID PROPERTIES

Mass flow rate	kg/h	N/A
Density	kg/m ³	N2: 7.76 @25°C, 600 kPa (g) & 12.28 @ 1000 kPa(g) ; Waste Oil: 933.25 @25°C
Viscosity	Pa.s	N/A
Thermal conductivity	W/m.K	N/A
Specific heat capacity (C _p)	kJ/kg.K	N/A

DESIGN PROPERTIES

	UNITS	Description
Type	-	Double-Ended Cylinders
Material	-	304L Stainless Steel
Pressure Rating	kPa (g)	1500 (minimum)
Internal Volume	L	4
Maximum Overall Length (External)	mm	700
Maximum Overall Diameter (External)	mm	150
Minimum Wall Thickness	mm	5
END Type	mm	Threaded female NPT (Both sides)
END Size	inch	1/2 [a]
Minimum Design Temperature	°C	37



REFERENCE DRAWINGS/DOCUMENTS

[1] ENS-OWPVR-PID-24002 - Waste Oil Feed System - Uranium Contaminated Waste Oil Plasma Gasification

NOTES

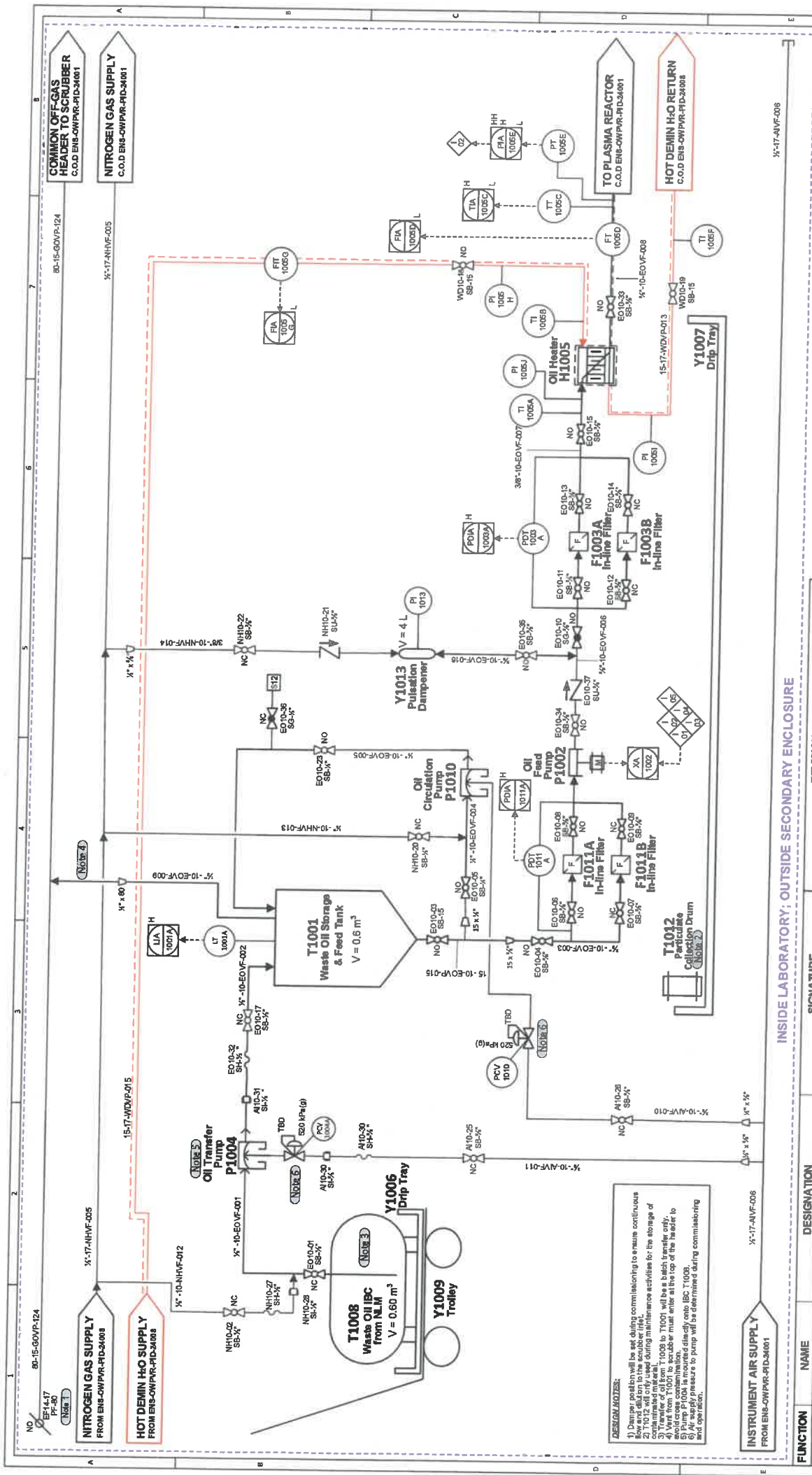
[a] The necessary fittings must be procured to match the 3/8" tubing (process connection) to which the pulsation damper will be connected.

[b] The fittings property: Tube Connection fitting, Male connector, 3/8" Tube Outside Diameter X 1/2" Male NPT.

	Name	Signature & Date
Compiled by	MP Mokgohloa (Mechanical Engineer)	
Checked	W Ludwick (Senior Process Engineer)	
Checked	G. Manuel (Chief C&I Engineer)	
Checked	W. Van Den Berg (Chief Electrical Engineer)	
Checked	K Moodley (Chief Process Engineer)	
Approved	S Mngoma (Chief Mechanical Engineer)	
Distribution	1. ES Records 2. Docman 3. Mr D Ngwenya	

This document is the property of Necsa and shall not be used, reproduced, transmitted or disclosed without prior written permission

NED-SHEQ-TEM-11002 R1



FUNCTION			SIGNATURE		
PREPARED	NAME	DESIGNATION			
REVIEWED	Mr W Ludwick	Senior Process Engineer			
REVIEWED	Mr N Marital	Process Engineer			
REVIEWED	Mr BM Khumalo	Senior Process Engineer			
REVIEWED	Mr SR Mngoma	Chief Engineer Mechanical			
REVIEWED	Dr G Manuel	Chief Engineer Control & Instrumentation			
REVIEWED	Mr WJ van den Berg	Chief Engineer Electrical			
APPROVED	Dr K Moodley	Chief Process Engineer			

REVISION HISTORY		LIST OF REFERENCED P&IDs & DOCUMENTS	
REV	DESCRIPTION	PREPARED	DATE
1	Issue 1: Initial Design	W Ludwick	2024/10/24
2	Issue 2: Revised Design	P Dube	2024/11/28
3	Issue 3: Final Design	P Dube	2025/01/28
4	Issue 4: Updated Design	P Dube	2025/02/28
5	Issue 5: Updated Design	P Dube	2025/03/28
6	Issue 6: Updated Design	P Dube	2025/04/28

1) ENS-OWPVR-15T-24004 - P&ID & P&ID Lead Sheet	
2) ENS-OWPVR-15T-24001 - P&ID for the Plasma Gasification System for the WOPG Demolition Facility	
3) ENS-OWPVR-15T-24004 - P&ID for the Primary Solids Capturing System for the WOPG Demolition Facility	
4) ENS-OWPVR-15T-24005 - P&ID for the Waste Oil IBC System for the WOPG Demolition Facility	
5) ENS-OWPVR-15T-24006 - P&ID for the Waste Oil IBC System for the WOPG Demolition Facility	
6) ENS-OWPVR-15T-24007 - P&ID for the Waste Oil IBC System for the WOPG Demolition Facility	



COPYRIGHT
This drawing is the property of Necsa and may not, without written permission, be copied, communicated to a third party, or be used in whole or in part for any purpose other than for which it is supplied.

Classification:
CONFIDENTIAL

PROJECT
URANIUM CONTAMINATED WASTE OIL PLASMA GASIFICATION

TITLE
P&ID - WASTE OIL FEED SYSTEM

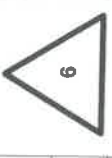
DRG. NO.
ENS-OWPVR-PID-24002

DRAWN BY
W LUDWICK

DATE
2025/04/10

SHEET 1 OF 1

DESTROY ALL PREVIOUS PRINTS



REVISION