



Request for Quotation

Doc. No
NLM-QUO-25/110

Revision 1

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RFQ Number	NLM-QUO-25/110
Request for Quotation Date	25 August 2025
RFQ Closing Date	29 August 2025
RFQ Closing Time	12:00
Compulsory Site Briefing	Not compulsory but if more information required can be arranged
Contact Person	Stephanie Kruger
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 a gas sampling pump as per the attached Specification Sheet

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,

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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 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 wet scrubber, S1501, in the gas clean-up system, together with equipment downstream of the scrubber, will be shared between two facilities, however, only one of the facilities will be operated at any given time. The gas clean-up system is shown in the attached Piping and Instrumentation Diagram (P&ID) [02].

The facility incorporates a wet scrubber, S1501, to clean the process gas stream, before the gas is discharged to atmosphere via the process ventilation system. To monitor the functioning and performance of the scrubber, gas samples are drawn at various points downstream of the scrubber. The sampling points are identified as S07, S08 and S09 in the attached P&ID [02]. An electrically-operated gas sampling pump, P1804, is used to transfer the gas from the sampling points to a gas sampling U-tube, Y1805, in which the samples drawn are collected and captured for analysis. The gas sampling system containing the gas sampling pump, P1804, is shown in the attached P&ID [03]. Material exiting the gas sampling system discharges into the process ventilation system of the Facility.

Details for the gas sampling pump, P1804, are given in the attached Specification Sheet [01].

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3. Scope of Work

Item Description	Quantity
To supply and deliver to the NECSA site the required gas sampling pump, P1804, as per the attached Specification Sheet [01], together with the required service (+ diaphragm) kit(s) and critical spares for the pump. NOTE: All other equipment and components identified in Section 2 and/or shown in the P&IDs [02] and [03] are outside the scope of work considered here.	1

4. Attachments

Ref #	DOCUMENT NAME	DESCRIPTION
01	ENS-NWPVR-SPE-24008, Rev. 2	Sampling Pump P1804 Specification Sheet
02	ENS-NWPVR-PID-24002, Rev. 3	P&ID Diagram – NW PlasGas Demonstration Plant Subsystem 15
03	ENS-NWPVR-PID-24015, Rev. 3	NW PlasGas P&ID Diagram – Gas Sampling Subsystem 18

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.
- 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 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.

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



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Item	Requirement	Weight	Points	Criteria
			10	Product available within 8 weeks of issue of Purchase Order
4	Suitability of Product Supplier must provide datasheet for the product	25	25	Supplier adequately demonstrates how the recommended product meets the user's requirements or specifications
Total		100		

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.

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

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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

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.



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- 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



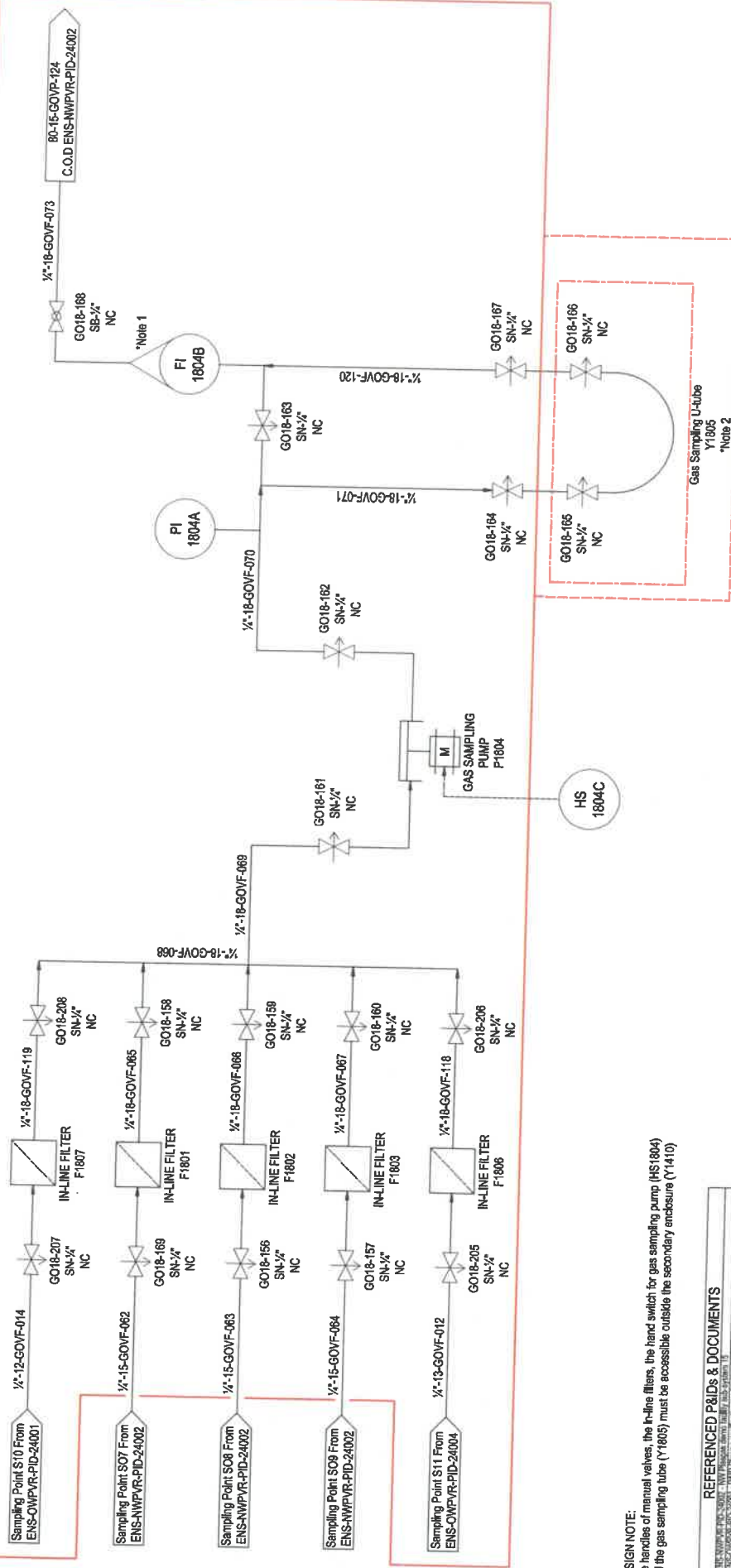
SAMPLING PUMP P1804 SPECIFICATION SHEET

Project	NW PlasGas and CWOPG Demonstration Facilities.	Unit Tag Number	P1804				
Datasheet Document No.	ENS-NWPVR-SPE-25008	Revision	2				
Description	Pump P1804 will be required to periodically transfer material from the scrubber S1501 off-gas stream, through the gas sampling system in the integrated Nuclear Waste Plasma Gasification (NW PlasGas) and the Uranium Contaminated Waste Oil Plasma Gasification (CWOPG) Demonstration Facilities. Material exiting the gas sampling system will discharge into the process ventilation system of the Facility.						
Plant Location	NECSA, Pelindaba, North-West Province						
Equipment Location	NW PlasGas Facility - Laboratory 150, north side of Building V-H2.						
Safety Classification	SC-3(N) & SC-2(C) ^[a]						
Quality Classification	QC-3(N) & QC-2(C) ^[b]						
FLUID PROPERTIES							
Process fluid	NW PlasGas		CWOPG				
	Gas mixture containing CO ₂ , HCl, O ₂ and N ₂ . Composition varies as per Note [d] below.		Gas mixture containing CO ₂ , HCl, HF, O ₂ and N ₂ . Composition varies as per Note [d] below.				
Solids content	Possible uranium-containing solid particulates.						
Corrosive due to	Hydrogen Chloride (HCl) gas and Hydrogen Fluoride (HF) gas						
MECHANICAL PROPERTIES							
Pump type	Vacuum Gas Sampling Pump						
Process Connections							
Pipe Suction	Size	1/4"	Rating	Class 150#	Flange Spec.	Supplier To Advise	
Pipe Discharge	Size	1/4"	Rating	Class 150#	Flange Spec.	Supplier To Advise	
Seal Fluid	Supplier To Advise						
Material of Construction	Casing	Supplier To Advise			Diaphragm	Supplier To Advise	
	Shaft	Supplier To Advise			Seal	Supplier To Advise	
	Packing	Supplier To Advise			Other	Supplier To Advise	
ELECTRICAL PROPERTIES							
Electrical (Y/N)	Y	Volts	Supplier to advise	Phase	Supplier To Advise	Hz	Supplier to advise
VENDOR DATA REQUIRED WITH TENDER							
1 Pump technical data				3 Pump dimensions with baseplate			
2 Utility Requirements							
REFERENCE DRAWINGS AND DOCUMENTS							
[1] ENS-NWPVR-SPE-24024: Specification Sheet for Electrical Heater H1507							
[2] MES-DWG-DWG-0001: PTFE Filter Destruction Layout Drawing							
[3] ENS-NWPVR-CLC-24018: Pressure Balance across the NW PlasGas Facility							
NOTES							
[a] SC - Safety Class							
[b] QC - Quality Class							
[c] Supplier to advise on special requirements for installation of pump.							
[d] In both the NW PlasGas and CWOPG Facilities, the composition of the scrubber off-gas, which passes through the heater, changes over time due to chemical reactions taking place in the scrubber. The gas compositions (% w/w) are as follows for the two Facilities: - NW PlasGas Facility: 1.3% CO ₂ , 0.1% HCl, 51.9% O ₂ and 46.7% N ₂ at the start of the process, and 74% CO ₂ , 0.02% HCl, 13.7% O ₂ and 12.3% N ₂ at the end of the process ^[1] . - CWOPG Facility: 10.3% CO ₂ , 0.01% HCl, <0.01% HF, 56.7% O ₂ and 33.0% N ₂ at the start of the process, and 69.6% CO ₂ , Traces of HCl, Traces of HF, 19.2% O ₂ and 11.2% N ₂ at the end of the process ^[1]							
[e] Critical spares for the pump must be supplied together with the pump							

NOTES:

1. Rotameter with integrated needle valve for flow control and creating pressure into Y1805
2. Gas Sampling U-tube is located inside a box that is an extension of the secondary enclosure for easy access for personnel. The box is open at all times to the secondary enclosure at the back of the box. Valves GO18-166 and GO18-167 are part of the gas sampling tube assembly. This ensures that any gas released at the sampling tube is drawn into the enclosure to limit operator exposure during sampling.

Secondary Enclosure
Y1410



DESIGN NOTE:

The handles of manual valves, the h-line filters, the hand switch for gas sampling pump (HS 1804C) and the gas sampling tube (Y1805) must be accessible outside the secondary enclosure (Y1410)

REFERENCED P&IDs & DOCUMENTS

FUNC.	NAME	DESIGNATION	SIGNATURE
-------	------	-------------	-----------

PRPD	L.Diamini	PROCESS ENGINEER	
------	-----------	------------------	--

REVIEW	N.Manilal	PROCESS ENGINEER	
--------	-----------	------------------	--

REVIEW	B.M.Khumalo	SENIOR PROCESS ENGINEER	
--------	-------------	-------------------------	--

REVIEW	S.Mngoma	CHIEF MECHANICAL ENGINEER	
--------	----------	---------------------------	--

REVIEW	G.Manuel	CHIEF ENGINEER CONTROL & INSTRUMENTATION	
--------	----------	--	--

REVIEW	W.van den Berg	CHIEF ELECTRICAL ENGINEER	
--------	----------------	---------------------------	--

APPRD	K.Moodley	CHIEF PROCESS ENGINEER	
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DESCRIPTION

Gas Sampling System Subsystem 18

Scale - N/A

Units - N/A

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DATE

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PROJECT

NW PLASGAS

P&ID DIAGRAM

GAS SAMPLING SYSTEM SUBSYSTEM 18

ENS-NWPVR-PID-24015

TITLE

GAS SAMPLING SYSTEM SUBSYSTEM 18

Scale - N/A

Units - N/A

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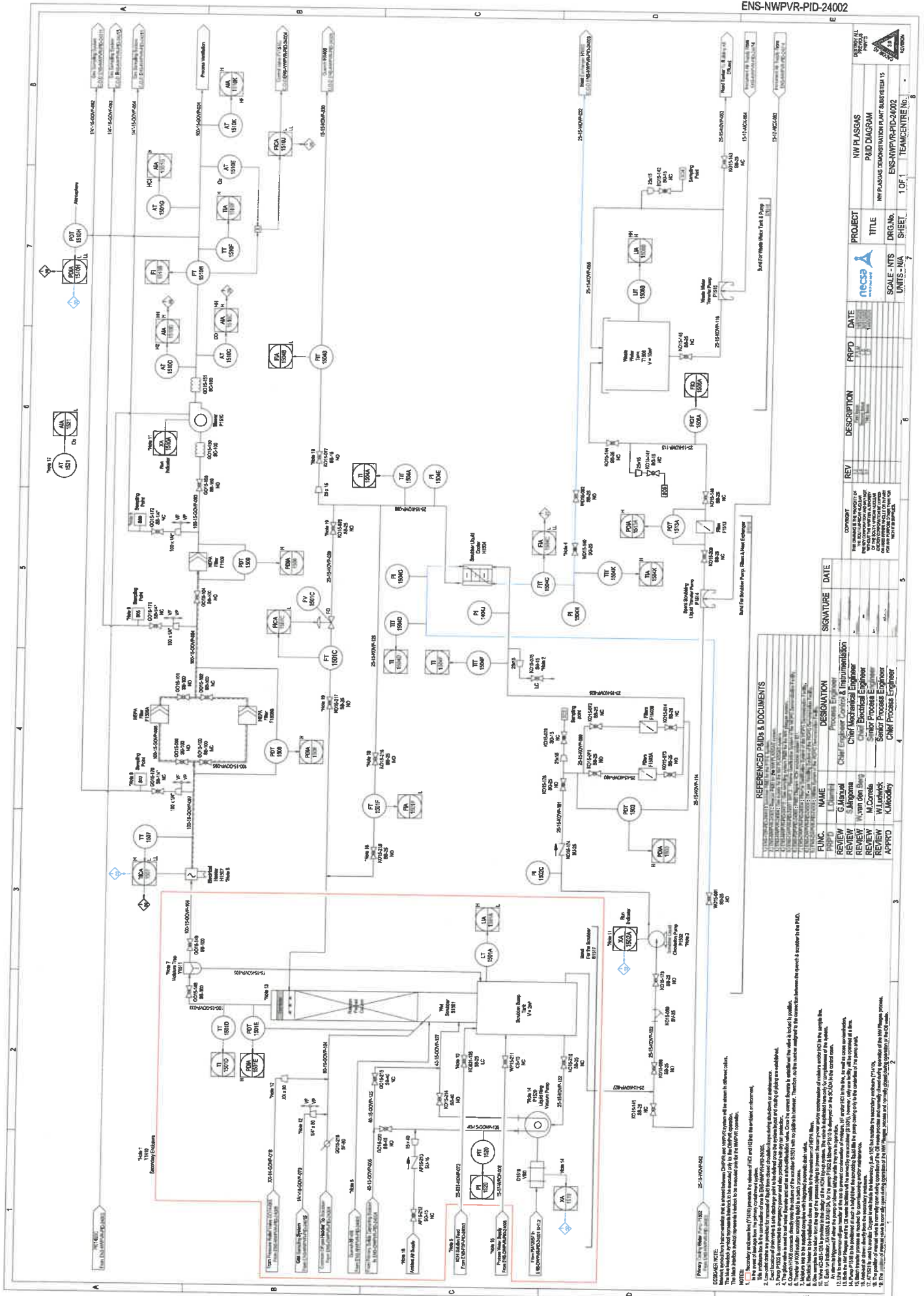
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REFERENCED P&IDs & DOCUMENTS

FUNC.	NAME	DESIGNATION
APPRO	L. Olmstead	Process Engineer
REVIEW	G. Marquet	Chief Engineer Control & Instrumentation
REVIEW	S. Angimona	Chief Mechanical Engineer
REVIEW	W. van den Berg	Chief Electrical Engineer
REVIEW	M. Cornella	Senior Process Engineer
REVIEW	W. Lutzwick	Senior Process Engineer
APPRO	K. Moody	Chief Process Engineer

SIGNATURE	DATE

	PROJECT	NW PLASGAS
	TITLE	P&ID DIAGRAM
SCALE - NTS	DRG. No.	NW PLASGAS DEMONSTRATION PLANT SUBSYSTEM 15
UNITS - N/A	SHEET	ENS-NWPYR-PID-24002
7		1 OF 1 TEAMCENTRE No. 8

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