SCOPE OF WORK

THE APPOINTMENT OF A SERVICE PROVIDER FOR SERVICING OF DIESEL ENGINES AT THE SANPC REFINERY FOR A PERIOD OF THREE (3) YEARS.

1. INTRODUCTION

1.1 SANPC Refinery have fixed and mobile pumps on site that are diesel driven. The diesel engines must be maintained regularly. The diesel engines driving fire water pumps had major services done during July 2024. The major service is scheduled to be done annually and overdue. Regular servicing ensures the reliability of the engines and reduces risk of failures during emergencies.

1.2 This scope of work covers the major servicing required for preventive maintenance of diesel engines driving fire water pumps across the refinery. There are 5 fire water pumps that are diesel driven, namely P3310, P3301B, P1134A, P1134B and Williams Pump.

1.3 During servicing the service provider may diagnose faults that are not part of the standard major service such as worn components. The additional scope will be vetted by the SANPC Rotating Equipment focal point. Any major corrective work that may be needed will be planned and executed following the service.

1.4 The contractor is expected to provide reports for each engine serviced and highlight any faults or concerns identified during the service. The report must include recommendations from the contractor. Reports are to be issued within one week of the service being carried out.

1.5 Experienced and qualifying diesel engine repair and servicing contractors will have the opportunity to view the 5 fire water pump engines on site before submitting quotes. Information relating to replacement parts like filters, gaskets and any other relevant details must be gathered by the contractor during the site viewing for their quoting purposes.

1.6 The contractor shall supply all labour, supervision, spare parts, consumables, materials, equipment, instruments, tools, services and transport required for performing the works.

1.7 The contractor shall not, without the prior written consent of SANPC Refinery, make any alteration or addition to the Scope of Work.

1.8 **The successful contractor will need to present HSSE files to SANPC Refinery HSSE department for approval. Only when the safety file is reviewed and approved will work be allowed to work on site.**

1.9 The allocated contractor staff will also need induction by the SANPC Refinery HSSE department, undergo hot work and confined space entry training as well as have valid medical fitness for work certificates issued by an occupational heal practitioner before undertaking work at the refinery.

1.10 After the above conditions are met, the contractor will need to carry out Risk Assessments for each activity. Risk assessments is a prerequisite to the issue of a clearance certificate to carry out work on site. This is included in the induction training provided by the SANPC HSE department.

1.11 The contractor staff are required to have the technical qualifications, knowledge and experience in diagnosis, servicing and repairing diesel engines. Proof of qualifications and experience will be required as part of the bidding process.

2. SCOPE OF WORK – PARTICULAR

2.1 The scope of work is related to diesel engines driving the following pumps:

- 2.1.1 P3310- Mitsubishi, S6N-PTA, 500HP
- 2.1.2 P1134A- Mitsubishi, S6N-PTA, 500HP
- 2.1.3 P1134B- Mitsubishi, S6N-PTA, 500HP
- 2.1.4 P3301B- Caterpiller, 3508
- 2.1.5 Williams Pump- Caterpiller C18

2.2 The scope of work for the major services requires the following for each of the diesel engines:

- 2.2.1 Check engine for any fluid leaks – oil, water, fuel.
- 2.2.2 Drain cooling water system and refill with water and the relevant corrosion inhibitor.
- 2.2.3 Drain engine oil.

2.2.4 Replace oil filters.

2.2.5 Refill with engine oil.

2.2.6 Check turbo-charger end float.

2.2.7 Check crankshaft end float.

2.2.8 Check all exhaust and turbo mounting bolts for tightness.

2.2.9 Check all engine mounting bolts and driver to driven coupling bolts for tightness.

2.2.10 Check all fluid levels – engine oil, coolant, injector and governor levels.

2.2.11 Check tension on v-belts. Replace if necessary.

2.2.12 Replace water hoses as required

2.2.13 Replace air filter.

2.2.14 Replace fuel filter.

2.2.15 Drain fuel filter water trap.

2.2.16 Check electrical connections on battery and starter motor for tightness.

2.2.17 Check general wiring electrics and instrumentation condition on the engine.

2.2.18 Check overall condition of the engine for any faults. Any issues to be recorded on report to SANPC Focal point.

2.2.19 Check that all safety guards are in place and secure.

2.2.20 Test run the engine. Monitor and record the engine key parameters in the cold and hot running condition such as temperatures and pressures. Contractor to list what parameters are recommended to be checked.

2.2.21 Carry out housekeeping at work area.

2.3 Within a week of the engine servicing, the contractor shall issue a report on the findings for each engine serviced identifying any issues and/or recommendations. The report is to also include the test run checklist containing the key engine running data such as temperatures, vibrations, lube oil, fuel and other critical pressures/temperatures.

3 EVALUATION CRITERIA

3.1 Phase 1

Mandatory Requirements

At this phase, bidder's responses are reviewed against the below Mandatory Requirements. **Failure to comply with any of the Mandatory Requirements will lead to the bidder being disqualified and not be considered for further evaluation on Technical Requirements.**

No.	Description of the Mandatory requirements	Comply	Not Comply
3.1.1	Bidder to submit copy of valid COIDA Letter of Good Standing relevant to engine overhauls/ repairs/servicing. **The Bidder must submit copy of valid COIDA certificate.**		
3.1.2	Bidders must have a Safety Policy which must comply to national standards. **The Bidder to submit a copy of their Safety policy.**		
3.1.3	The expectation is that bidders working in similar environments already have Safety Files developed for other clients that are classified as Major Hazardous Installations (MHI). **To demonstrate this Bidders must submit copies of the following element from a HSE file done for one of their clients:** **Baseline Risk Assessment** • **Baseline/ Issue-Based Risk Assessment conducted for work at a petrochemical or MHI site** • **Must reflect high-risk activities (flammables, confined spaces, hot work, etc.)** • **Must be site-specific.**		

3.2 TECHNICAL EVALUATION

Bidders will be evaluated according to the below technical evaluation criteria. Minimum Technical Threshold is **70%.** It must be noted that if the Bidder does not meet the **70%** minimum threshold, the bidder will be disqualified and not be evaluated further.

1.1. Company Experience

The bidder must have carried out the same work (service and repairs of diesel engines) for clients within a similar environment, ie manufacturing companies that are classified as MHI(Major Hazardous Installations). The bidder should submit the relevant reference letters on client's letterheads, signed and dated with contactable details and include date when servicing or repairs were executed in the past five years.

The evaluation committee reserves the right to verify all information to establish the score. References that cannot be contacted will not contribute to any scoring.

Evaluation Criteria	Document	Score	Weighting %
Two (2) or more relevant reference letters		5	**35%**
One (1) relevant reference letter		3	
No relevant reference letter submitted		0	

Technician's experience

The technician carrying out the diagnostics, repairs and servicing must have relevant qualifications (trade Test) and experience to carry out the work effectively.

Bidder to submit CVs of proposed technician/s to diagnose, repair and overhaul diesel engines clearly indicating previous experience and durations of work.

Evaluation Criteria	Document as Evidence	Score	Weighting %
>5 years experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms	CV of proposed technician/s that will be assigned to diesel engines servicing and repairs at SANPC Refinery.	5	**65%**
4 to 5 years experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms		4	
3 to 4 years experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms		3	
2 to 3 years experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms		2	
1 to 2 years experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms		1	
< 1 year experience in carrying out the diagnostics, servicing, repairs and overhauls of diesel engines for Refineries or Manufacturing firms		0	

Pricing Schedule

YEAR 1

P3301B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P3310	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134A	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**

VAT @15%	**R**
Total Inc Vat 15%	**R**

Williams Pump	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	50		
Assistant	50		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

Description	**Total Cost**
P3301B	
P3310	
P1134A	
P1134B	
Williams Pump	
Travel Fees **(Lump Sum) Year 1**	
Others (Specify Clearly)	
TOTAL FOR 5 PUMPS - YEAR 1	**R**

YEAR 2

P3301B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P3310	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134A	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

Williams Pump	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	50		
Assistant	50		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

Description	**Total Cost**
P3301B	
P3310	
P1134A	
P1134B	
Williams Pump	
Travel Fees **(Lump Sum) Year 2**	
Others (Specify Clearly)	
TOTAL FOR 5 PUMPS - YEAR 2	**R**

YEAR 3

P3301B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P3310	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134A	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

P1134B	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	40		
Assistant	40		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

Williams Pump	Estimated Hours/ Qty	Unit Rate	Line Total
Technician	50		
Assistant	50		
Consumables	1		
Spares	1		
Subtotal Excl Vat			**R**
VAT @15%			**R**
Total Inc Vat 15%			**R**

Description	Total Cost
P3301B	
P3310	
P1134A	
P1134B	
Williams Pump	
Travel Fees **(Lump Sum) Year 3**	
Others (Specify Clearly)	
TOTAL FOR 5 PUMPS - YEAR 3	**R**

TOTAL FOR ALL THREE YEARS:

Description	Total Cost
TOTAL FOR: **YEAR 1 + YEAR 2 + YEAR 3**	**R**