SCOPE OF WORKTABLE

Request for Major Service and Repairs of fuel systems that is used to refuel Vehicles and Equipment at George Airport.

- **Annexure A - Find the description (detailed) of the installed fuel system infrastructure.**
- **Annexure B – Find the description of the maintenance activities.**
- **Annexure C – Find the list of safety file requirements**

Location : George Airport Airside

Affected Infrastructure: Fuel systems

Find the detailed list of infrastructures in the table 1 below:

Ensure that all activities (installation + equipment & spares) is completed according to the applicable **legislation** and **standards** and acceptable quality of the Airports Company SA – which is detailed, but not limited to, the list below:

- Occupational Health & Safety (OHS) Act (act 85 of 1993)
- Applicable SANS Standards of 10142-1
- Applicable SANS Standards of 1020. (Power operated machines with flammable liquids.)
- Applicable SANS Standards of 1650 (Measuring Instruments for liquid fuel dispensers)

All work (supplied equipment) must be signed off by way of completing the attached Service Report Sheet – which needs to be completed in full prior to the processing of payments.

Note that the maximum allowances to be made provision for, is indicated in the fields below. However, only actual quantities will be invoiced for. Should you feel based on expertise and experience that the listed allowance is not adequate – please indicate so on the quotation. This implies that all prices must be indicated per applicable unit, i.e.

- Labor = Each (per activity completed in full according applicable published standards)
- Material / Spares = per standard length; or per meter; or per square meter

Item	Item/ Service Description	Unit of Measure	Unit Price	Quantity	Total Price
1	**Major Service and Repair of fuel system installations (Pump / bowser / dispenser / Tank) + Report** Location 1 = Apron Location 2 = ARFF Building Location 3 = Electrical Complex • Refer Annexure A for the list of equipment installed with specifications. • Refer to Annexure B for the minimum maintenance activities that must be performed. Note that the contractor is the expert and will perform a holistic maintenance referencing applicable legislation and industry standards. A comprehensive technical report must be submitted. • This line item does not include the cost of the standard service kit. The bidder needs to complete the service kit breakdown below and	Each		**3**	

	then submit the total price in the separate BOQ line item – defined for it. • This line item makes provision for a quantity of 3 major services. One for each location of equipment installed.				
2	**Repairs – Meter / Totalizer Unit** • Location = Apron + ARFF • Obtain more information during site clarification meeting with reference to the operational error. • Include all cards. • Replace with completely new unit if repairs are not possible. • Find additional information on the control cards below: o Model: JT1300GB-Z o Electronic Cabinet Serial No:09370925 o Controller Board Serial Number:090206062 o Interface Board Serial **No:090203342**	Each		**2**	
3	**Repairs – Underground pipeline that is leaking at the Simulator.** • Refer to the scope in Annexure B • Make the provision for 5m the pipe length- for which only actuals will be claimed for. • Remainder of the pipes and of cuts to be handed over to ACSA to keep as inventory.	Each		**1**	
4	**Replace signage on all the fuel tank installations.** • Locations = Apron + ARFF Building + Electrical Complex • Remove existing faded and damaged signs completely (non-conforming). • Supply new Standard plastic (vinyl) sticker signs. • Signs must be waterproof. • Find example pictures of signs below. • Signs must be visible for clear understanding from 10 meters away. • Signs must include the following descriptions (meanings) as a complete set: o Flammable Liquid - Sign. o Non-Smoking - Sign. o No Open Flame near - Sign. o No Cell phone or Radio - Sign. o Indication of the tank capacity - sign. • Remainder of the signs to be handed over to ACSA to keep as inventory.	Each		**3**	
5	**Spares – Service kit Bowser / Pump / Dispenser** • This line item is for the cost of the standard service kit. The bidder needs to complete the service kit breakdown below. This will enable ACSA to process invoices for only actual spares supplied. • Provide details of the service kit in the table 2 below	Each		**3**	
6	**Spares – Service kit Fuel Tank** • Provide details of the service kit in the table 2 below.	Each		**3**	

7	**Spares – Flame Proof motor.** • Type: Explosion proof type. • Power: 1HP • Phases: Single Phase • Voltage =220V • Speed:1420rpm • Date of Mnf:2009/08/06 • Class Type: Class 1 Group D • Temperature Code: T3B • Max Temperatures: 40 degrees.	Each		**2**	
8	**Spares – Fuel Filters and Pump Filters.** • Make: Duramax • Pressure= 5561kpa. Fuel Filters x2 Pump Filters x2	Each		**4**	
9	**Spares – Flap Switches** • Model: JT 1300GB-Z. • Located at the Nozzle home position.	Each		**2**	
10	**Spares – Diesel Nozzle** • Make: zva 2010 • Complete new nozzle ready to be used.	Each		**2**	
11	**Callouts and repairs+ Report** This line item makes provision for repairs and spares, using the following information which is mandatory for completion by the bidder. The rates should be market-related and only actuals will be invoiced for. Rate per call-out (includes the first hour on-site): • R_____ Resource – "Technician"/"artisan" labour hourly rate: • R_____ (includes both Normal hours & after hours) Resource - assistant labour hourly rate: - if required • R_____ (includes both Normal hours & after hours) Response time – The response time is 24 hours after the call has been logged. Spares: o The requirement of specific spares must be discussed and approved by ACSA. o A markup of 10% will be allowed for the required spares during the callouts. o The original spare purchase invoice must be submitted. Note: Provision for a total monetary value of R 50 000.00 is made – which will be claimed for – using the information above. This provision is valid from the date of the PO release. It is also valid up until the provisional amount is depleted. Whichever comes first. All replaced spares (except) lubricants must be handed over to ACSA for disposal.	Each	**R50 000**	**1**	**R50 000**

12	**Safety File** Note: Before any work starts, the file must be approved and a" permit to work ''must be issued by the ACSA safety department. Find a generic list of safety file items below in Annexture C. Reference the scope of work against the safety file requirements and only applicable items must be submitted for approval. Safety file approval is annual.	**Each**		**1**	
13	**Provisional sum for Permits**		**R 7500**		**R 7500.00**

Annexure A

No	Description	Location	Purpose	Specifications	Tank
1	Fuel Bowser (Pump) + above ground Tank	Apron	Provide Diesel to ground handlers and special equipment (ARFF Tenders; Tractors; etc.)	Make = Gilbarco; Model = JT1300GB; Ser = 093711927; Date of Man = 200909)	Above ground; 9000 litres
2	Fuel Bowser (Pump) + above ground Tank	ARFF Building	Provide Diesel to ARFF Tenders and Simulator.	Make = Gilbarco. Model Number= JT1300GB. Serial Number=100310044. Date of Man= 201001	4000Litres
3	Tank above the ground	Electrical Complex	Supply diesel Generators	Liters= 9000	Above the ground, 9000 liters

SERVICE KITS ITEMS

The Contractor shall provide **all** spares necessary for the execution of the works as per OEM requirements. The table indicates minimum recommended items. The contractor should complete the list as deemed appropriate to meet the OEM requirements. Quantities of each item must be listed.

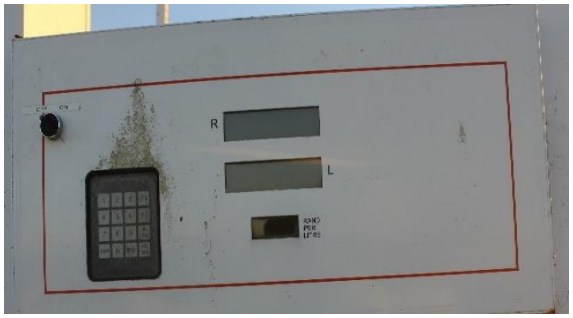
Table 2

Number	Service Kit= Fuel Bowser/Pump/Dispenser	Price	Service Kit = Fuel Tank	Price
1				
2				
3				
4				
5				
6				
7				

Total Price_____

The Total Price for this list must go above to line-item number 6.


Gilbarco
PRESET INSTRUCTIONS
TO ENTER PRESET
1. PRESS CLEAR
2. PRESS DIGITS OF PRESET AMOUNT
3. PRESS TYPE(S OR VOL)
4. PRESS ENTER


R
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R
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See the pictures attached above that include:

Figure 1 Fuel System at the Apron
Figure 2.Fire Station Fuel System
Figure 3. Front view of the system and internal part for the Apron and fire station The system is the same, only takes sizes are different.
Figure 4. Name Plate for dispensers for more information

Figure 5. Front view of Despenser Meters(Totalizers)

Figure 6.Back view of Despenser Meters(Totalizers)

Figure 7. Hydraulic Filter

Figure 8. Pump Filter

<u>See below the for Generaor fuel Sstem</u>


Donaldson


N/S 3260003522
NO APTO PARA OPERACIONES FISCALES
NOT TO RESALE

Annexure B

Mechanical Inspection and repairs:

- Service activities as per applicable legislation; standards & OEM recommendations
- Service the entire fuel pump installation = inclusive of (not limited to): dispenser, meter / totaliser, diesel pump, tank, safety band wall, legislative signage, mechanical items, electrical / electronic items, etc.
- Check that the dispensing part of the fuel bowser is in good condition (100% functional) and clean.
- Check that the diesel pump (s) of the fuel bowser is in good condition (100% functional) and clean. Maintain both the mechanical (pump) and electrical (motor) sections of the "diesel pump".
- Check that the diesel tank/reservoir (s) of the fuel bowser is in good condition (100% functional), no leaks and clean both inside and outside. Drain the fuel that is currently in the tank and perform the maintenance activities. Check the quality of the fuel for contamination as a result of the tank condition**.**
- Inspect and clean the pump nozzle with strainers, where applicable).
- Check and replace the defective nozzles.
- Replace all fuel filters. This must form part of the service kit and claimed for as part of the maintenance cost
- Inspect all the pipes and hoses for leaks and replace them where recommended.
- Check and confirm hose and pipe continuity – no blockages.
- Check/repair / replace hose and pipe swivels.
- Check / repair / replace defective faulty flap switches.
- Confirm correct fuel spout for fuel grade.
- Check for rusted/dented/ damaged panels and replace defective units.
- Check / lubricate / replace defective locks.
- Check for leaks and condition on check valves.
- Check pump seal and motor seal if still intact.
- Check for containment of pump sump.
- Check the overall condition of the pump system.
- Check if pump base is correctly secured to island or fuel system.
- All items to be replaced / repaired (rather than serviced) will be claimed for, from the provisional sum in the BOQ. Note that the technical report must identify reasons for replacements. If such replacement / repairs is approved by ACSA, then a quotation must be submitted for approval. All spares used will be paid based on proven cost (with a 10% markup). The labour defined in the BOQ will be used. The report must then be revised after replacement (repairs).

Electrical Inspection and repairs

- Check if all electrical installation still complying to SANS 10142-1 and it complies with specialised installation standards including flameproof.
- Check all fuses if they still conducting.
- Check / repair / replace defective meters.
- Check / replace damaged junction boxes.
- Ensure all bolts of the junction are secured and are the correct type (flame proof & chemical proof).
- Ensure all flameproof glands of the junction box are secured and are of the correct type.
- Check the condition of the totalizer, replace if defective.
- Do a proper test on the motor as the circuit keeps on tripping and give motor test report and a pump test.
- Inspect all signs and marking on the system and replace where it is required.
- Check the overall pump system and give recommendation where is required

Service Activities

- Service activities as per applicable legislation; standards & OEM recommendations
- Take fuel samples to check contamination.
- Check and remove sludge at the base of the tank if its required.
- Check and remove corrosion inside the tank if its required or remove any dirt that is inside the tank.
- Check the overflow pipe if it's still functioning accordingly.
- Check all pressure valves if are still working fine.
- Inspect the exterior & interior give report before repairs and after repairs.
- Inspect all signs and marking on the system and replace where it is required (including No Smoking sign, No cell phone or two way communication sign)
- Inspect the overall of the tank and give recommendation where required.

Reporting

- Each site visit must be reported and signed off by ACSA. This sheet must form part of the comprehensive technical report. This sheet will proof actuals for date time and resources used.
- Record all activities completed.
- Record all measurements and adjustments.
- Take relevant pictures (before and after) inclusive of specification labels.
- Detail expert recommendations for system improvement / upgrade.
- Etc.

Reactive Maintenance – Pipe Repairs at ARFF Simulator

- Pipe Size = 25mm in Diameter (steel Pipe). ·
- Pipe Contain = AVGAS Jet A1 + Diesel. (Mixture) ·
- Dig to expose the pipe as the portion that Is leaking is underground. After repairs apply soft sand around the pipes. Fill up and lightly compact. Provide wooden bollards (painted x 20) to prevent vehicles from driving over the buried pipes. ·
- The worse-case-scenario assumption is that the damaged pipes must be cut out and replaced with new - either by way of straight joint fittings or welding ·
- Provide pressure test results of all the pipes after repairs. ·
- Include all required labor, other spares, consumables, equipment, and safety precautions. ·
- See the picture at the bottom page.
- Include rust treatment on the piping in all the pipes.

Annexure C

All bidders must submit a safety file for approval by ACSA safety department 14 days prior to the commencement of work – below please find a list of all the documentation required for a complete safety file in Annexure C

- Mandatory form. 37(2) Agreement
- Mandatory form. 37(2) Agreement of Sub Contractor
- CR 5(k) Appointment Letter for PC
- Valid letter of good standing
- Notification of construction work or Construction Permit as applicable (Annexure 2)
- Detailed Scope of Work
- Risk Assessments
- Fall Protection Plan & Rescue Plan (where applicable)
- Confined Space Rescue plan
- Method Statement/s
- OHS Specification specific to project.
- SHE policy
- Project Specific Safety Plan
- Airside Safety Plan (where applicable)
- Updated Employee List of with ID/Passport Copies
- Medicals (where applicable)
- First Aid box Register
- PPE study and issue register
- Tools/Equipment/Plant/Scaffolding registers
- Waste management Plan
- ACSA EMS 048 Environmental Specifications
- Letters of appointment **with competencies** (where appointments are applicable depending on the task):
    1. OHS 16(1) CEO
    2. OHS 16(2) Assistant CEO
    3. CR 8.1 Construction work Manager
    4. CR 8.5 Construction H&S officer
    5. CR 8.7 Construction work Supervisor
    6. CR 8.8 Assistant Supervisor
    7. CR 9.1 Risk Assessor
    8. CR 13.1(a) Excavation Supervisor
    9. GAR 9 Incident Investigator
    10. GSR 9 First Aider
    11. CR 24 & EMR 9 Electrical Tool Inspector
    12. CR 29(H) Fire Fighting Equipment Supervisor
    13. CR 23 Construction Vehicles & Mobile Plant Operator
    14. GSR 13 Ladder Inspect
    15. Portable (Hand) Tool inspector
    16. CR 16.1 /SANS 085 Scaffolding Inspector
    17. CR 28 (a) Stacking and Storage Supervisor
    18. HCS Supervisor (HCS Regulations)
    19. OHS 19 SHE Committee Members
    20. OHS 17 Health & Safety Reprehensive