

ANEEXURE E SCOPE OF WORK

Tender No.: FOSPHB-RFP-38-25/26

Description: Foskor Mine – Separation of Paralleled Transformers

1. INVITATION TO TENDER

This document describes the scope of work for the supply, installation and commissioning of 3-way outdoor Ring Main Units (RMU) to separate transformers that are currently supplied from one feeder panel at Foskor.

2. COMPANY BACKGROUND

Foskor is one of the world's largest producers of phosphate rock (concentrate) and phosphoric acid. It is one of the world's few vertically integrated producers of phosphoric acid and is the second largest supplier to India, the world's largest consumer of phosphoric acid.

The Company owns and mines phosphate resources and beneficiates the mined material to produce a phosphate concentrate at Phalaborwa, in the Limpopo Province of South Africa. The phosphate concentrate is sold locally and also transported to the Richards Bay plant on the coast of Kwa-Zulu Natal to produce phosphoric acid, sulphuric acid and granular fertilisers MAP and DAP from phosphoric acid and is the leading supplier of fertilisers to South Africa. In all about 95% of the phosphoric acid is exported and the granular sales are divided between exports and local markets. Since 1951 Foskor has supplied more than 95% of South Africa's fertiliser requirements.

3. PRE-QUALIFICATIONS

CIDB requirement is a 4EP grading or higher.

4. MANDATORY REQUIREMENTS

1. A minimum of 4(four) years' experience in RMU installation, HT cable installation, and electrical protection installation, testing and commissioning is a mandatory requirement for this tender.
2. The bidder must either be the Original Equipment Manufacturer (OEM) or submit proof of OEM-certified training for the installation and commissioning of the specified Ring Main Unit (RMU).

5. ABBREVIATIONS

BOQ	–	Bill of Quantities	QCP	–	Quality control Plan
BRA	–	Baseline Risk Assessment	RMU	–	Ring Main Unit
BTU	–	Battery Tripping Unit	CT	–	Current Transformer
COC	–	Certificate of Compliance	OH&S	–	Occupational Health and Safety
COP	–	Code of Practice	GOR	–	Gas Operated Relay (Buchholtz)
OT	–	Oil Temperature	QMS	–	Quality Management System

PRV	–	Pressure Relieve Valve	NER	–	Neutral Earthing Resistor
WT	–	Winding Temperature	PPE	–	Personal Protective Equipment
QMS	–	Quality Management System	QC	–	Quality Control
HIRA	–	Hazard Identification and Risk Assessment	WBS	–	Work-breakdown structure
QMS	–	Quality Management System	SANS	–	South African National Standards
ISO	–	International Organization of Standardization	SHE	–	Safety, Health, Environment
LDV	–	Light Delivery Vehicle	SHERQ	–	Safety Health Environment Risk & Quality

6. APPLICABLE STANDARDS AND SPECIFICATIONS

- a) Foskor Electrical COPs.
- b) Foskor's Engineering Specifications: EE-1, GE-1, and EC-1
- c) SANS 1874:2022 Switchgear- Metal-enclosed ring main units for rated a.c. voltages above 1 kV and up to and including 36 kV
- d) SANS 10198-2:2004 The selection, handling and installation of electric power cables of rating not exceeding 33kV.
- e) SANS 62271 High-voltage switchgear and control gear
- f) SANS 60947 Low-voltage switchgear and control gear
- g) SANS 62626-1 Low-voltage switchgear and control gear enclosed equipment.
- h) SANS 1274 Coating by powder coating Process
- i) SANS 1091 National colour standards for paints
- j) SANS 156 Moulded case circuit breakers
- k) SANS 1885 AC metal-enclosed switchgear for rated voltages above 1 kV and up to and including 36 kV
- l) SANS 1195 Busbars
- m) SANS 60255-127 Measuring relays and protection equipment
- n) SANS 61869-1, -2 & -3 Instrument transformers
- o) SANS 10142-2 The Wiring of Premises Part 2

7. SCOPE BACKGROUND

Foskor is upgrading its electrical protection system for dual transformers that are fed from a single feeder protection panel to a more robust, localized electrical protection. This enhancement will involve installing a Ring Main Unit (RMU), ensuring dedicated and comprehensive protection for both transformers.

The current setup uses a single feeder protection panel for two transformers, which limits individual overcurrent, earth fault protection and the integration of crucial safety devices. The current design allows for the circulation of fault currents between the transformers, in the event of a fault which can lead to explosions due to inadequate protection. This project will address this by providing dedicated protection for each transformer, accommodating essential safety devices such as **Buchholz relays, pressure relief valves (PRVs), Neutral Earthing Resistors (NER), and temperature sensors.**

Specifically, this project will cover installations in:

- 1) **Bay 1 and Bay 2**, 1250KVA and 1000KVA respectively, supplied from the Conveyor 101 substation.
 - 2) **Bay 6 and PGN** 1000KVA and 800KVA respectively, supplied from the Conveyor 101 substation.
 - 3) **Bay 8 and Bay 12**, 750KVA and 800KVA respectively, supplied from Secondary West substation.
 - 4) **Bay 121 and Bay 122** Both 2500KVA, supplied by the PSZ substation.
- a. A 3-way RMU comprising of an incomer breaker, and two feeder breakers must be supplied, installed and commissioned for each bay's transformer.
 - b. Each feeder must contain a protection relay that will provide Instantaneous and IDMT overcurrent and earth faults including ARC protection. An alarm panel/relay that will provide tripping and alarms/indications for transformer safety devices must be installed with the RMU.
 - c. The incomer must contain a protection relay that will provide Instantaneous and IDMT overcurrent, earth fault and ARC protection.
 - d. The RMU must be installed in an outdoor enclosure with a BTU that complies with the RMU panel wiring.

8. SCOPE OF WORK

The project encompasses the following key deliverables:

8.1. Supply, Installation and Testing

1. **RMU:** Provide a Ring Main Unit, configured with one incomer and two (2) feeders. Each feeder shall include integrated overcurrent, earth fault and ARC protection, as well as trip and alarm panel/box.
2. **Outdoor Kiosk Supply and Installation:** Supply and install an outdoor kiosk for the RMU at a designated area within Foskor. The kiosk must be equipped with a Battery Trip Unit (BTU).
3. **Comprehensive RMU Testing:** Conduct full testing on each RMU, including circuit breakers, protective relays including ARC protection, and current transformers (CTs), to ensure optimal performance and adherence to specifications.
4. **185mm XLPE Cable Installation:** Install and terminate 185mm XLPE cables for each bay, connecting to and from the installed RMU.
5. **2.5mm Protection Cable Installation and Testing:** Install and terminate 2.5mm protection cables on the RMU and transformers. This includes wiring for protection schemes and transformer safety devices such as Buchholz relays, pressure relief valves (PRVs), temperature monitoring devices, and Neutral Earthing Resistors (NERs). All functionalities of these connections must be thoroughly tested.

6. **RMU Functional Testing:** Conduct comprehensive functional testing of the RMU to verify the proper operation of all controls, alarms, interlocks, and indications. This includes all necessary switchgear and BTU tests.
7. **Earthing Connections:** Connect both the kiosk and the RMU to the existing earth circuit, ensuring proper and secure earthing for all the components.
8. **Plinth construction:** A Plinth shall be erected by the contractor at a designated area in Foskor for the installation of the RMU kiosk. The contractor must supply all the material required to construct the plinth for the size of the RMU kiosk. The plinth specifications must comply with the SANS 1874:2022 and the kiosk manufacture's requirements.

8.2. Cabling Requirements

The contractor shall be responsible for supplying all necessary cable accessories and associated equipment to complete the project. This includes:

- **Cable Supply:**
 - 600 meters of 185mm XLPE cable.
 - 300 meters of 2.5mm cable (minimum number of cores =8).
- **Termination and Ancillary Equipment:** Supply all the required termination kits, joint kits, lugs, and any other equipment and consumables essential for successful cable installation and connection.

8.3. Cable Installation Details

Bay 1 and Bay 2

- Two 185mm XLPE cables, approximate lengths of 30 meters and 40 meters, will be installed from the RMU to each transformer bay.
- One 185mm XLPE cable, approximately 60 meters in length to join the existing cable to the RMU incomer.

Bay 6 and PGN

- One 185mm XLPE cable, approximately 20 meters in length from transformer to the RMU

Bay 8 and Bay 12

- Two 185mm XLPE cables, approximate lengths of 40 meters and 60 meters, will be installed from the RMU to each transformer bay.
- One 185mm XLPE cable, approximately 350 meters in length, will be installed from Secondary West substation to the RMU incomer. This cable will be replacing an existing paper cable. The contractor shall decommission and remove the existing paper cable that is currently connected between Secondary West substation and the transformers.

Bay 121 and Bay 122

- RMU and cables are not required for work on these bays. A spare panel will be used to separate the transformers.
- The appointed contractor shall disconnect the cable for bay 121 from the existing panel and terminate it on the spare panel, connect all the protection wiring including transformer safety devices and NER and install protection relay on the spare panel.

- The contractor shall conduct all the tests required, including tests on the CTs, 11kV breaker, all transformer safety devices, NER and protection relay as part of commissioning.

8.4. Cost and Expenses

The contractor shall supply all engineering services, materials, labour, transport, supervision, and consumable materials, equipment, tools and every item of expense for the scope of work to be completed successfully unless otherwise stated.

8.5. Disposal of refuse

The Contractor shall be responsible for disposal of refuse and waste generated during the project execution daily. The site is to be kept clean, neat, and tidy, by complying with Foskor Waste Management COP.

8.6. Commissioning and Handover

On completion of installation and commissioning of the RMU, all commissioning results and hand over documents to be documented and submitted to the Foskor representative in both soft and hard copy. Foskor engineer/s to be invited to witness all commissioning tests. Commissioning to comply with the approved design and specifications.

Installation sign-off (Site acceptance) and handover report should be handed to Foskor. Contractor to take full responsibility for the compliance with regards to the supply, installation and commissioning of the RMU.

9. RMU SPECIFICATIONS

The contractor will supply, install, and commission the RMUs as per the specifications and the manufacturers' requirements.

9.1. RMU and Protection Switchgear Panel

Description	Requirement
Outdoor enclosed in a kiosk	Material: 3CR12/mild steel
Alarms and tripping annunciator	Transformer safety devices (GOR, OT, WT, PRV, NER)
Trip and close indications	Breaker status
CBNH indication	Trip coil and spring charge monitoring
PNH indication	Trip circuit, DC supply and relay monitoring
Umbilical cord connection and cable	For remote switching
Protection Relay	SEL751/Siemens 7SR5111/ Thytronic XMR or equivalent with ARC protection (3 sensors)
CT specs	5P20, 200/1 CTR

9.2.3 x 11kV circuit breakers

Description	Requirement
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Arc extinguishing medium	Vacuum/SF6
Rated Voltage	11 KV
Number of poles	3
Impulse withstand voltage	95 KV
Current rating	630A
Short time withstand current	31.5 KA for 3 seconds and above
Frequency	50 Hz
Operating mechanism	As per the RMU requirements
Cable and busbar earthing facilities	Yes
Fully interlocked for safety	Yes

9.3.BTU

Description	Requirement
Installation Method	Installed in the Kiosk
Manufacture	Actom/Static power or equivalent
Input Voltage	230VAC
Output voltage	As per the RMU wiring requirements
Frequency	50 Hz
Battery type	Alcad Nicad 24AH or above batteries

10.BATTERY LIMITS – INCLUSIONS AND EXCLUSIONS

List of boundaries up to where is it Foskor's responsibility and where/what is the contractor's responsibility.

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C =CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC=FOSKOR, AT COST TO CONTRACTOR					
1.Sanitary –		2.Transport		3.Electrical	
1.1 Water on site and toilet facilities / janitorial services	FF	2.1 Labour	C	3.1 Generators + ELU + earth rod	C
1.2 Potable connection point	C	2.2 Materials	C	3.2 Electrical Extensions	C
1.3 Connection to construction water supply	C	2.3 Equipment	C	3.3 Site Establishment	C
1.4 Change rooms	FF	2.4 All TMMS	C	3.4 Temporary lighting& small power to Foskor DB	C

WHO WILL SUPPLY THE FOLLOWING?					
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				3.5 Electrical connection point DB	C
				3.6 Connection to Electrical supply DB	C
				3.7 Electric sub-DB + distributing wiring	C
				3.8 Power for tools on site from existing Foskop electrical supply point (Welding 525 V plugs and 230V plugs)	C
4. Quality –		5. Security		6. Lifting and Rigging	
4.1 Plan, Management, QA, QC	C	5.1 Site Security	C	6.1 All rigging equipment (Slings, Chain blocks, turfers, etc	C
4.2 All quality test Civil, Paint, Mechanical, etc	N/A	5.2 Foskop ID Card	C	6.2 Rigger	C
4.3 Sampling and laboratory testing	N/A			6.3 Mobile cranes	C
7. Medicals -		8. Communication devices – All communication devices like laptops, computers, networks, radios, cellphones, etc	C	9. PPE	
7.1 Entry and Exit	C	Mobile phone	C	9.1 Supply, Issue, inspect and manage	C
7.2 First aid box at place of work	C	Laptop and printer	C		
10 Site Surveys	C	11. Safety File - Foskop will issue template	FF	12 Training & Authorizations	
		Ensure file conform/ populate to Foskop standards	C	12.1 All Required Training	C
				12.2 Authorisation - As per Foskop COP	FF
13. Site Establishment		14. Waste management on site		15. Painting - All Equipment and tools paint, labour, etc	C

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C =CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC=FOSKOR, AT COST TO CONTRACTOR					
13.1 Site office/s with suitable facilities for daily "Green Area" meetings, and lunch area	C	14.1 Transport all waste to Foskor designated waste sites	C		
13.2 Site establishment space	C				
16 Scaffolding		17 Labour		18. Compressed air	
16.1 Scaffolding Supply & Erect	C	17.1 All labour as per Scope of Work to execute task including management	C	18.1 Sandblasting or flash blast	N/A
16.2 Scaffolds be managed by the Contractor	C			18.2 Compressor	N/A
16.3 Cherry Picker's – only if and when available by pre - booking	C			18.3 Air for power tools - If available	N/A
16.4 Cherry Picker's Driver– Trained and authorized driver	C				
19 Fuel		20. Storage and inventory control		21 Consumables	
19.1 Fuel Supply	C	20.1 Protective coverings/tarpaulins	C	21.1 Welding rods	C
19.2 Fuel storage	C	20.2 Storage area and inventory control	C	21.2 Bolts & Nuts	C
19.3 Fuel fire protection	C			21.3 Ect	C
19.4 Refuelling	C				
22 Tools & Equipment		23 Certificates -		24 Training	
22.1 All Portable electrical Equipment	C	Supply All certificates as required	C	All required training and training manuals as required to ensure that Foskor can train its workforce and operate the plant / equipment safely	C
22.2 Hot Work Equip as per Foskor COP -	C			All manuals and related documents to be supplied to	C

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C =CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC=FOSKOR, AT COST TO CONTRACTOR					
Welding Machines, Gas Cutting, Grinding, Gauging, etc				project Eng and Foskor Drawing office for safe keeping	
22.3 Tools as required to execute task	C				
				25 Mechanical	
				25.1 Conveyor Belt	N/A

11. ADDITIONAL BOUNDARIES

None

12. QUALITY

- i. The service provider must provide the necessary quality management systems and plans to ensure that the quality of his work complies with the requirements of this scope of work
- ii. The service provider shall during all phases of construction comply with the Foskor approved Quality Assurance Plan
- iii. The service provider shall be responsible for all the resources required for executing the Quality Management System including but not limited to, developing the Quality Assurance Plan & performing the Quality Control measures to ensure that the deliverables comply with the specifications & standards mentioned in the scope of work
- iv. Any change requests / additional work resulting due to inadequate quality management system will be to the account of the service provider
- v. Foskor might appoint a third party for Quality Control Inspections
- vi. The Service provider will have to provide an approved quality system for all work executed.

LANGUAGE OF DOCUMENTS AND MANUALS

Note! - All Documents and Manuals must be in English

SUBMISSION OF DOCUMENTS AND MANUALS

Documents and Manuals to be submitted in the flowing formats:

Type of Document	Hard Copy	Electronic Format
Manuals	X	X
As built drawings	X	X
Tests and commissioning reports	X	X
Quality documents	X	X
Software		X

Hard Copy: Book or binding arch file format must be durable and of high quality.

Soft Copy: Manuals, Reports and Data Books – Word, Excel, PDF, etc.
 Drawings – AutoCAD and hand delivered.
 Storage – Compact Disk or Data traveller

DOCUMENTS / DRAWINGS ISSUED BY FOSKOR

- Single line diagram on request

13.ON-SITE SUPERVISION REQUIREMENT FROM CONTRACTOR.

- 1) A Foskor work permit before commencement of site work.
- 2) A full time 2.9.2 appointed supervisor who has passed the Foskor 2.9.2 exams and who has been declared competent by the Foskor LACA committee will be on this site for the entire duration of the OHL construction.
- 3) A 2.6.1 appointed site manager who has passed the Foskor 2.6.1 exams and who has been declared competent by the Foskor LACA committee for overall site management.
- 4) Appointed SHE Rep for the entire duration of RMU installation.
- 5) A full time Safety Officer will be required for the entire duration of the RMU installation.
- 6) All the drivers for contractor TMM will be required to have the Foskor licence to drive in Foskor premises.

14.TENDER DELIVERABLES

The deliverables will include but not be limited to the following: -

- All deliverable as highlighted in the Technical and Commercial evaluation.
- Complete Foskor pricing schedule
- Preliminary Project Schedule
- Detailed CVs of all team members
- Copy of Certificate of Passing Foskor 2.6.1 and 2.9.2 Legal Exam for the people that is intended

to be used in this task /project.

- Tax Clearance
- Letter of Good standing (Workman compensation)
- BEE Certificate
- CSD certificate

15.SPECIFICATIONS, PROCEDURES, REQUIREMENTS AND RESPONSIBILITIES

The successful Bidder is expected to:

- 1) Comply with all the requirements of Foskor COP 25, Service Provider Control.
- 2) Supply requested equipment, labour, and expertise to provide to install, commission, train and maintain as specified in this scope of work.
- 3) Be a recognized expert, who specializes in the supply, installation, commissioning in LV and HV networks.
- 4) Collect from the source of issue and deliver to the work site all required spares, materials, consumables, and every item issued for the work to be completed successfully.
- 5) Be responsible for the cost of his/her appointed sub-service providers and inspectors.
- 6) The Appointed Bidder shall indicate all work or part thereof to be handled by the subcontractor.
- 7) The Bidder shall report any other defects and irregularities noted during the execution of allocated work.
- 8) All reporting shall be done in writing and in an acceptable format.
- 9) The Bidder shall ensure that all service, supervision, quality checks are of acceptable standard.
- 10) The Bidder shall provide, if requested, all applicable documentation to this SOW and Tender Evaluation Criteria
- 11) The Bidder shall guarantee all rendered services for period at least 12 months after date of acceptance (any exclusion shall be highlighted and agreed by both parties in writing before acceptance. If no agreement is reached, all services rendered shall be considered guaranteed as stipulated)

16.QUALITY REQUIREMENTS

- (1) The Bidder must provide the necessary quality management systems and plans to ensure that the quality of his work complies with the requirements of this scope of work.
- (2) The Bidder shall during all phases of this project comply with the Foskor approved Quality Assurance Plan
- (3) The Bidder shall be responsible for all the resources required for executing the Quality Management System including but not limited to, developing the Quality Assurance Plan & performing the Quality Control measures to ensure that the deliverables comply to the specifications & standards mentioned in the scope of work.
- (4) Any change requests / additional work resulting due to inadequate quality management system will be to the account of the Bidder.
- (5) Foskor might appoint a third party for Quality Control Inspections
- (6) The Bidder will have to provide an approved quality system for all work executed. This will include the following but is not limited to:
 - i. Quality plan
 - ii. Quality compliance – Performance and reports

- iii. Quantity surveying
 - iv. Quality Assurance
 - v. Quality Authorization matrix – part of Quality plan
 - vi. Quality control
 - vii. Quality administration. – All documents, checks, measurements, reports, variances, analysis, Corrective actions, etc. needs to be properly filed and available on request at any time. The file will require an index.
 - viii. Includes all test work, laboratories, Filing, etc.
 - ix. Survey and survey verifications.
 - x. Construction versus design - Any Deviations from the approved “Construction Drawings”
 - xi. Quality communication – What needs to be reported to whom and at what frequency.
- (7) FOSKOR envisage a complete quality System driven by the Bidder and this system/plan will be approved by FOSKOR and the appointed designer (if applicable) before construction/fabrication will be started.
- (8) Compliance to this plan will be measured and failure to adhere to the quality plan will result in the stopping of construction activities until concerns have been addressed. The cost for this delay will be for the Bidder’s account.
- (9) FOSKOR may appoint a third party to measure and control FOSKOR’s interest in the terms of quality in this contract and the Bidder is expected to work in conjunction with this company.
- (10) Hold points will be discussed and finalized with the successful Bidder based on the approved Quality plan.
- (11) The Quality plan will only be compiled and signed off after the Method Statement and WBS* have been compiled.
- *WBS is a hierarchical and incremental decomposition of the project into phases, deliverables, and work packages. It is a tree structure, which shows a subdivision of effort required to achieve an objective, for example, a program, project, and contract.*
- This includes arrangements, tools, equipment labour, Tasks, Purchase, Quality, Communication, etc.*
- (12) Quality on overhead line type of work will be included in the Scope of Works, but the Bidder will have to submit proof of an experienced quality assurer or relevant qualifications. If the Bidder does not have this, it will be required that this service be hired in by the Bidder at his cost.
- (a) State any specific hold points that is not negotiable here.
 - (b) State any other quality that is applicable that is not in the “Parameters” section.
- (13) Method statement – the Bidder must list all steps and actions required to complete the work as per the scope of work – typically includes the items listed below:
- (a) Key step and stages of the work required.
 - (b) Tools, Equipment, TMMS, etc
 - (c) Labour requirements, etc
 - (d) Spares, resources,
 - (e) Safety requirements

QUALITY FILE INDEX

The quality file index listed below will be the minimum requirement.

This file must be kept up to date for the duration of the project and will be handed in to the Foskor's.
Project Engineer on completion of the project

File Index

1. Issued for Construction (IFC) drawings - Approved.
2. Quality Control Plan (QCP) Approved
3. Competency of People – Welder Qualifications, Trade, Authorization, Certifications, etc
4. Designer/Engineers Instructions, Specifications, Approvals, Concessions applied for & approved.
Site instructions, Variations and ECO's
5. Method Statement of contractor– Approved.
6. Material orders & Delivery notes
7. Certificates – Material, Data Sheets, Compliance, Certification, etc
8. Test Results – Each Discipline – Test cubes, NDT, etc.
9. Request for inspection (RFI)
10. As Built Drawings
11. Reports - Survey, etc
12. Punchlist/Snag list
13. Handover/ Occupations/ Taking over Certificates/Commissioning

17.LEGISLATIVE REQUIREMENTS

- 1) The successful or appointed Bidder shall comply with:
 - (a) The Mines Health and Safety Act with Regulations (Latest revision)
 - (b) The National Road Traffic Act with Regulations (Latest revision)
 - (c) All applicable national and international legislative requirements and regulations.
 - (d) Foskor (Pty) Ltd. COP (Compendium of Procedures) No. 25 for Service Provider Control (Available on request)
 - (e) Foskor (Pty) Ltd. COP (Compendium of Procedures) No. 59 for Trackless Mobile Machinery (Available on request)
 - (f) All Foskor procedures and policies applicable to the successful application of the contract. (Available on request)
- 2) The successful or appointed Bidder shall comply with the following Environmental Specifications, Policies and Procedures:
 - a) COP 41 Housekeeping and workplace organisation
 - b) COP 49 Waste Management
 - c) COP 51 Resource conservation, energy, and materials
 - d) COP 70 Storage of petroleum products and other hazardous material
 - e) National Environmental Management Act 107 of 1998 (NEMA)
 - f) National Environmental Management Waste Act 59 of 2008 (NEMWA) as amended.

- g) The successful Bidder shall include in his/her SAFETY FILE, and comply with, the following documents:
 - i. Environmental Aspect and Impact Register (Applicable to this contract).
 - ii. Environmental Objectives and Targets (Applicable to this contract).
 - iii. Waste Management Plan (Applicable to this contract).
 - iv. FOSKOR Atmospheric Emissions License (Copy available on request)
 - v. FOSKOR Waste Management Licence (Copy available on request)
 - vi. FOSKOR Water Use Licence (Copy available on request)
- 3) Before entering and operating a service vehicle (Own vehicle) on the Foskor site, the appointed Bidder shall:
 - a) Ensure that his driver/s are in possession of a valid national driver's licence for the specific class of vehicle, has been tested by the Foskor mobile equipment training centre and authorised by a Foskor MHSA (Mines Health and Safety Act) regulation 2.13.1 appointee for the class of vehicle to be used on site.

(Contact the Foskor mobile equipment training centre on 015 789 2840 to make an appointment for competence testing and authorisations)
 - b) Ensure that his service vehicle complies to the requirements of Foskor COP 59, Trackless Mobile Machinery, before entering a red-flag area (i.e phosphate and magnetite stockpile areas).

Minimum requirements: Vehicle fitted with conspicuity marking standards according to DMR (Department Mineral Resources) guideline for vehicle visibility livery, rotating orange strobe light, buggy-whip flag and 9.0 kg SANS approved fire extinguisher.
 - c) The appointed Bidder shall, before entering and operating a vehicle on the Foskor premises:
 - i. Obtain permission from the Foskor Safety & Security manager to operate his nominated service vehicle/s on the Foskor site. (Forms will be provided)
 - ii. Obtain a certificate of fitness from the Foskor Light Vehicle maintenance workshop supervisor or appointed Foskor inspector for his nominated service vehicle/s. Inspections conducted daily between 08:00 and 08:30 and between 13:30 and 14:00 (Excl Fridays) at the Light Vehicle Maintenance workshop.
 - iii. Submit the above permission and COF in at the main security office for issue of a vehicle access disk.
 - d) Ensure that his service vehicles have been inspected (Daily) in accordance with the Foskor standard (COP 59) to ensure that they are safe and fit for use. (Forms will be provided)
 - e) See Foskor COP 59, Trackless Mobile Machinery for details.
- 4) Before entering and operating/working on the Foskor site the appointed Bidder shall ensure that his driver/workmen are:
 - a) Briefed on the required task and have been informed of any abnormal conditions/situations.

- b) Physically, emotionally, and mentally fit to perform their duty.
- c) Issued with the necessary PPE (Personal Protective Equipment) to safely operate his service vehicles and perform the duty of maintaining, servicing, inspecting, and testing earthmoving- and mobile equipment.
- d) Before commencement of work:
 - i. All tools and equipment shall have been inspected and tested to be in a good and safe working order.
 - ii. All workmen have participated in the completion of a standard Foskop site risk assessment (Commonly known as a HIRA or Hazard Identification and Risk Assessment) and taken appropriate actions to mitigate any identified hazards.
- 5) The Bidder shall perform NO lifting or rigging tasks. (Request assistance from the requesting Foskop supervisor)
- 6) Before entering and operating/working on the Foskop site the appointed Bidder shall ensure that his portable electrical equipment have been tested and declared safe to use by the Foskop electrical services workshop.
- 7) Before accessing earthmoving- and mobile equipment whereupon work is to be conducted, the earthmoving- or mobile equipment shall be locked out at the battery power source. The lock shall be marked and tagged. The tag shall contain the Bidder's business name, employee name responsible for lock and contact numbers. See Foskop COP 53, Lock-out system, and usage for details.
- 8) Before accessing the earthmoving- or mobile equipment where working at height is required (Above 2.0-meter ground level) the appointed Bidder's employees shall have inspected the 1) safety lanyard (Full body harness) to be of correct standard and safe to use, 2) lifeline or anchorage points and 3) that access ladders in good and safe working order. See Foskop COP 96, working at heights for details.
- 9) Although every effort has been made to ensure that the information contained within this document is correct, it remains the responsibility of the bidder to verify actual status and site conditions. (A site visit can be arranged)

18.SAFETY

The Bidder to refer to the full and updated Foskop COPs available.

- 1) The Bidder and subcontractors need to comply with the Mine Health and Safety act at all times. All Foskop COP's Policies and procedures need to be adhered to.
- 2) A Bidder 2.9.2 to be permanently on site.
- 3) Medical, Induction, Foskop ID Card, etc. is approximately R800 per person. Exit medicals need to be done at the termination of contract.
- 4) The Successful tenderer will be required to compile a Foskop Work permit and at least 3 weeks should be allocated for this. The Bidder must provide the following appointed persons in terms of the MSHA: 2.6.1; 2.9.2 and Section 29(1) – SHE REP for the duration of the contract.
- 5) All vehicles and cranes and other TMM's to be inspected before entering Foskop Premises.
- 6) All person competencies to be verified before being allowed to work on Foskop premises for a specific task.
- 7) The Bidder must compile a Safety File as per Foskop standard for all contractors and sub-contractors.
- 8) The Bidder shall provide the safety file for all contractors that shall be appointed by him/her under this contract and that safety file shall be approved by Foskop Health and Safety official.

- 9) Site access will need to be controlled and all persons must receive site specific induction before entering the site.
- 10) Conduct inspections as per FOSKOR Safety System. Analyze data and trends and recommend preventative measures where required.
- 11) Ensure all authorizations are in place as per the FOSKOR Safety System. Arrangement with FOSKOR training to be done by the Bidder to ensure that authorization and training is conducted. Arrange timeously.
- 12) Ensure all workers competencies are available and have been validated.
- 13) Ensure proper security, sign boards, fencing and barricading is in place on site where applicable.
- 14) The Bidder shall in general comply with the FOSKOR General Engineering Specifications, COP's, latest revisions, and all relevant regulations.
- 15) The Bidder must complete a Baseline risk assessment (COP 26) before a work permit can be issued for the installation.
- 16) All Bidders not in possession of a valid FOSKOR ID card have to complete the FOSKOR induction course and have to undergo a medical examination at the FOSKOR clinic for the Bidder's account.
- 17) The Bidder shall be responsible for coordinating and integrating his schedule and responsibilities with other FOSKOR appointed contract manager on site for this Scope of Work.
- 18) All personnel operating mobile equipment including LDV's must have a FOSKOR driver's permit.
- 19) All the required PPE and Safety Equipment are for the Bidder's account.
- 20) All Bidders must ensure that:
 - (a) His workers are issued with the correct personal protective equipment free of charge.
 - (b) That the workers wear the PPE in accordance with the project area's requirements or as given by the Supervisor.
 - (c) Training is provided in the correct use of PPE to workers.
 - (d) Daily inspections are done on PPE.
 - (e) The registers will be complete at least monthly on findings on PPE. (All PPE must be kept in good condition)
- 21) All providers of services need be informed of the following minimum training is applicable to all contractors (irrespective of the tasks or scope of work) that will enter FOSKOR Phalaborwa site with effect from 1 April 2014. This training is not presented by FOSKOR Training section and Bidders must ensure that the training is sourced through accredited external training companies:
 - (a) Basic health and safety principles
 - (b) HIRA
 - (c) First Aid Training
- 22) All other training requirements must be aligned with the baseline risk assessment. Risks identified in the baseline risk assessment will guide the requirements for training. A summary of the training must be completed as well as status on required authorization as per FOSKOR COP's. With the exception of the minimum training requirement, all other training will be provided by the FOSKOR Training department and should be booked in advance.

Note: See Attached extracts from FOSKOR COP's.

Note: You need a Foskop Driving license and your vehicle needs to be inspected for Road worthiness before allowed inside the mine. You need an open pit license to drive in the Mine open pit area.

Note: Bidder can obtain an updated CD/Disk with all Foskop COPs from Bridget Cole at Projects.

23) All the required PPE, Safety Equipment is for the Bidder's account.

SAFETY FILE

The appointed Bidder must compile a SAFETY FILE specifically for this contract. The SAFETY FILE must at all times be available for inspection by a Foskop official: The following guidelines are provided in order to assist the appointed Bidder in compiling a SAFETY FILE:

- i. Title and index cover page (Required safety file index is available from Foskop Safety Department)
- ii. A copy of the PERMIT TO WORK.
- iii. A copy of the MHSA Regulation 2.6.1 and -2.9.2 and SHE Rep appointment letters.
- iv. A copy of Foskop COP 25, Contractor control.
- v. Base line risk assessment of ALL and ANY POTENTIAL tasks that may be performed on site under this contract. See Foskop COP 01, Risks and Opportunities Management for details.
- vi. Copies of critical task descriptions and standard operating/maintenance procedures.
- vii. Copies of the appointed contractor's safety, health, environmental, Wellness Management including HIV/AIDS and Covid-19 pandemic, smoking and waste management policies.
- viii. Training records of all on-site employees.
- ix. Employee records of actual time worked (Normal and overtime).
- x. Copy of on-site induction training.
- xi. Records of inspections of TMM (Trackless Mobile Machinery) and trailers. See Foskop COP 59, Trackless Mobile Machinery for details.
- xii. Records of issues and inspections of PPE (Personal Protective Equipment) and safety equipment. See Foskop COP 65, Personal Protection Equipment for details.
- xiii. Records of issues and inspections of PEE (Portable Electrical Equipment). See Foskop COP 60, Portable electrical Equipment for details.
- xiv. Records of issues and inspections of tools and equipment. See Foskop COP 63, hand tools for details.
- xv. Records of daily, weekly, and monthly 2.6.1, 2.9.2 / SHE Rep safety inspections. See Foskop COP 22, SHE Inspections for details.
- xvi. Records of daily green-area and safety talks. See Foskop COP 7, Communication for details.
- xvii. Any other documents, certificates or records as requested by a Foskop official deemed necessary to ensure that all safety, legislative and administrative requirements have been met.

Note: The Bidder can obtain an updated Safety file pack with all updated COP from the SHEQ department.

ADDITIONAL SAFETY REQUIREMENTS

The following are mandatory at the South Pit

- i. Pit license is required for driving in the pit.
- ii. ROPS to be installed in the vehicle to be used to transport the working team to the pit.
- iii. Vehicles will be required to have reverse hooters to access the mine area.
- iv. Vehicles will be required to be fitted with a buggy whip access the mine area.

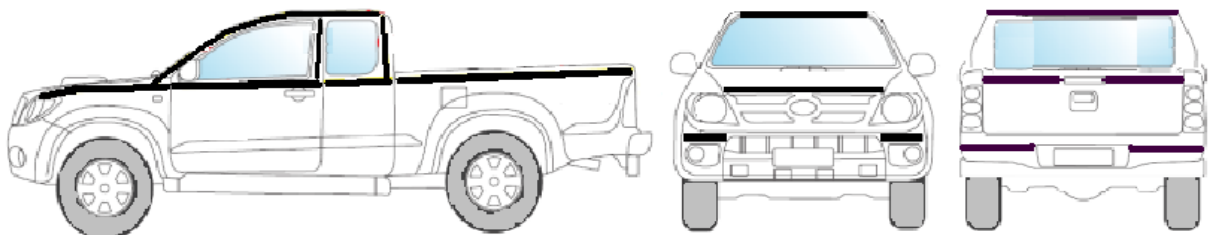
Note:

- 1) In order to access mobile equipment located in restricted areas (Mine open pits and Tailings dams) the suppliers service vehicle (Own vehicle) must be:

- a) Equipped and capable of travelling on rough, uneven and sometimes wet, muddy and slippery gravel surfaces.
- b) Fitted with seatbelts in accordance with the National Road Traffic Act, Regulation 213. (Seatbelt construction and anchorage must comply with SANS standards 1430 and 10168)
- c) Fitted with an internally or externally mounted ROPS safety cell that has been designed, fabricated, tested and certified to comply with the requirements of ISO 3471:2008 - EARTH-MOVING MACHINERY – ROLL-OVERPROTECTIVE STRUCTURES or similar specification.

(Provide certification)

- d) Equipped with a portable PDS (Pedestrian Detection System) supplied by Electro Diesel Group
- e) Fitted with an intermitting sounding reverse hooter.
- f) Be issued with a valid illumination certificate.
- g) Fitted with an amber LED strobe light mounted in the centre on the vehicle roof, rear window protector or cab guard.
- h) Vehicle to be provided with two heavy duty stop-blocks (Chock blocks)
- i) Fibreglass flagpole (buggy whip) and reflective flag.
- j) In accordance with the requirements of the National Road Traffic Act, vehicle to be supplied with a set (2) of emergency warning triangles securely mounted and easily accessible in the driver's cab.
- k) Vehicle to be supplied with a 9.0kg charge, SANS approved, dry powder, 40% Mono Ammonium Phosphate, 45% Ammonium Sulphate and 0% Calcium Carbonate based fire extinguisher with scrubber valve behind gauge. Fire rating 3A:3B.
- l) Vehicle shall be provided with conspicuous marking strips (Tape) as follows (3M Diamond grade. Front white, rear red and sides yellow):



- 2) Before entering and operating a service vehicle (Own vehicle) on the Foskor site, the appointed service provider shall:
 - a) Ensure that:
 - i) His driver/s are in possession of a valid national driver's licence for the specific class of vehicle, has been tested by the Foskor mobile equipment training centre and authorised by a Foskor MHSA (Mines Health and Safety Act) regulation 2.13.1 appointee for the class of vehicle to be used on site.
 - ii) His driver/s has been tested by the Foskor mobile equipment training centre and authorised by a Foskor MHSA (Mines Health and Safety Act) regulation 2.13.1 appointee to operate a vehicle in the mine open pits (Restricted or red-flag areas)

(Contact the Foskor mobile equipment training centre on 015 789 2840 to make an appointment for competence testing and authorisations)

 - b) The appointed service provider shall, before entering and operating a vehicle on the Foskor premises:
 - i) Obtain permission from the Foskor Safety & Security manager to operate his nominated service vehicle/s on the Foskor site. (Forms will be provided)
 - ii) Obtain a certificate of fitness from the Foskor Light Vehicle maintenance workshop supervisor or appointed Foskor inspector for his nominated service vehicle/s. Inspections conducted daily between 08:00 and 08:30 and between 13:30 and 14:00 (Excl Fridays) at the Light Vehicle Maintenance workshop.
 - iii) Submit the above permission and COF in at the main security office for issue of a vehicle access disk.
 - c) Ensure that his service vehicles have been inspected (Daily) in accordance with the Foskor standard (COP 59) to ensure that they are safe and fit for use. (Forms will be provided)
 - d) See FOSKOR COP 59, Trackless Mobile Machinery for details.

19. PERMIT TO WORK REQUIREMENTS

Before any on-site work under this contract may commence, the appointed or successful Bidder shall obtain from FOSKOR a PERMIT TO WORK. The following guidelines are provided in order to assist the appointed Bidder in obtaining a PERMIT TO WORK. (See FOSKOR COP 28, Permit to work and COP 25, Service provider control for details):

- 1) The PERMIT TO WORK can be obtained from- and on completion returned to the Legal Administrator, FOSKOR Safety department.
- 2) Obtain a contract/order number from the FOSKOR procurement department.
- 3) Appoint a subordinate manager in accordance with Regulation 2.6.1 and an on-site supervisor in accordance with Regulation 2.9.2 of the Mines Health and Safety Act.
 - a) The appointed subordinate manager and -supervisor shall be required to write and pass the FOSKOR 2.6.1 and 2.9.2 legal examinations within 30 days after being awarded this contract.
 - b) Attend the hour-long legal exam briefing any Monday between 07:00 and 08:00 at the Security training hall.

- c) Write legal examination any Friday between 07:00 and 10:00 at the Security training hall.
(bookings for exams are made at trainingbookings@foskor.co.za)
- 4) Appoint an on-site SHE-Rep in accordance with section 29(1) of the MHSA to assist the Regulation 2.6.1 and 2.9.2 in the daily on-site management of health, safety, and environmental issues.
 - a) The designated SHE Rep must have the ability to read, write and express him/herself.
 - b) The appointed SHE-Rep shall be required to attend a five day SHE-Rep training course within 30 days after being awarded this contract (Training free of charge). Make booking on trainingbookings@foskor.co.za.
 - c) A pre-requisite for attending the SHE-Rep training course is successful completion of Basic Health & Safety Principals- and HIRA training. (See item 8(a) below)
 - d) See Foscors COP 5 Health and Safety Representatives for details.
- 5) Provide a name list, including ID numbers, residential and postal addresses, and telephone numbers of all of the appointed Bidders' on-site employees.
- 6) All the appointed Bidders' on-site employees shall undergo a full medical examination at the Foscok on-site Clinic. The clinic can be contacted at 015 789 2544/ dollys@foskor.co.za for an appointment.
(NOTE: All new and Employees leaving the service of the appointed Bidder must undergo an entry or exit medical examination)
- 7) The appointed Bidders' designated as on-site drivers shall receive competence testing and authorisation to operate vehicles on the Foscok site (See item 2 under the heading LEGISLATIVE REQUIREMENTS).
- 8) All the appointed Bidders' employees shall receive/have received training in:
 - (a) - First aid level 1 (Provide own training)
 - Basic Health & Safety Principals (Provide own training)
 - HIRA (Provide own training)
 - Basic firefighting. (Provide own- or receive Foscok training, contact 015 789 2874/ prettyz@foskor.co.za to book)
 - Lock out. (Provide own- or receive Foscok training, contact 015 789 2531 to book)
 - (b) All training not provided by Foscok must be verified by the Foscok training superintendent Mr. Johan Fouche. Please contact him on trainingbookings@foskor.co.za to make an appointment or alternatively email proof of training and certificates to johanfo@foskor.co.za to confirm compliance before requesting his approval on the PERMIT TO WORK.
- 9) All of the appointed Bidder' on-site employees shall receive the basic Foscok site induction training at the Foscok Security office.
- 10) All of the appointed Bidder' on-site employees shall receive site specific induction training provided by the Foscok area Regulation 2.6.1 appointee/s.
- 11) A HIRA (Hazard Identification and Risk Assessment) shall be completed for ALL "typical" tasks that will be completed under this contract. HIRA's to be signed by all Bidder employees. Make use of Foscok's own HIRA document, Annexure 1.2, contained in of COP 1, Foscok risk management (Available on request)
- 12) Attach a detailed scope of work describing the required task and -outcome of this contract.

- 13) All Foskop's appointed MHSA Regulation 2.9.2, 2.6.1, 2.13.1, 2.17.4 and 3.1.a managers must undersign/approve the PERMIT TO WORK.
- 14) Registration and proof of payment under the Compensation for Occupational Injuries and Diseases Act, no. 130 of 1993. Registration number must be provided.
- 15) SARS issued tax clearance certificate.
- 16) All relevant documentation and/or evidence of compliance must be attached to the PERMIT TO WORK.
- 17) Upon successful completion and approval of the PERMIT TO WORK the security department will issue the appointed Bidders' employees with access ID cards valid for 12 months.
- 18) Any other documents, certificates or records as requested by a Foskop official deemed necessary to ensure that all safety, legislative and administrative requirements have been met must be attached to the PERMIT TO WORK.

The appointed Bidder must allow at least three to ten working days to complete all the PERMIT TO WORK requirements.

20. MINIMUM CRITERIA FOR PERMITTING CONTRACTORS ON SITE

BACKGROUND

Foskop (Pty) Ltd would like to ensure that all Bidders are aligned with our goals to improve our SHEQ performance whilst ensuring compliance with the legal framework in which Foskop operate.

To achieve this, Foskop would like to draw attention to some of the minimum requirement that must be in place before any order is placed with a supplier of services without limiting or distracting from the full SHEQ requirements, Engineering Standards or Codes of Practices.

The requirements (both commercial and safety) must therefore be read in harmony and implemented without conflicting or compromising each other. This document is designed to communicate to all Bidders as well as Foskop departments the absolute minimum requirement that is needed to ensure compliance with the Foskop standards as well as the MHSA. The requirements for permitting suppliers on site will differ depending on a number of considerations such as the nature of the services, consideration for the health and safety risk as per the scope of work, the reason for inclusion on the data base and the capacity.

The guidelines is applicable to all Bidders that perform work on the Foskop Phalaborwa site for a duration exceeding 5 days per year (either continuous or total days)

SCOPE OF WORK

The scope of work determines the nature of the services that are procured and thus the absolute minimum requirement that is needed to ensure compliance with the Foskop standards as well as the MHSA. It is therefore imperative that clearly define the SHEQ requirements in enough detail at the start of the procurement process, namely in the scope of work.

SHEQ REQUIREMENTS

PPE

Any Bidder that does not provide employees with his/her own personal protective equipment, use it incorrectly or use damaged equipment in the opinion of an authorised Foskop official, will be prevented from starting or continuing the work.

All Bidders must ensure that:

- i. His workers are issued with the correct personal protective equipment free of charge and keep record.
- ii. That the workers wear the PPE in accordance with the project area's requirements or as given by the Supervisor.
- iii. Training is provided and records of training are kept in the correct use of PPE to workers.
- iv. Monthly and Daily inspections are done on PPE.
- v. The registers will be complete at least monthly on findings on PPE. (All PPE must be kept in good condition)

Training

Prospective Bidders, who intend to tenders/quotes, must be informed that evidence must be provided that employees received the minimum training in Safety, Health and Environmental issues and submit this with their tender or quotation.

All providers of services need be informed of the following minimum training is applicable to all Bidders (irrespective of the tasks or scope of work) that will enter FOSKOR Phalaborwa site with effect from 1 April 2014. This training is not presented by FOSKOR Training section and Bidder must ensure that the training is sourced through accredited external training companies:

- Basic health and safety principles
- HIRA
- First Aid Training

All other training requirements must be aligned with the baseline risk assessment as defined in the scope of work. Risks identified in the baseline risk assessment will guide the requirements for training. As an example, if work entails working with overhead cranes, the employee/s need to be trained in lifting equipment and lifting tackle. The FOSKOR COP (COP 56) however also required that the person/s is not only trained but also authorised to perform lifting tasks.

Training matrix (see Annex 2) is a summary of the training completed as well as status on required authorization as per FOSKOR COP's, with the exception of the minimum training requirement.

22. TRAINING AND COMPETANCY OF TEAM

		Minimum training			Legal Appointees			Job Specific/Risk based training requirements														Environm				
		Basic health and safety principles	COP 1: HIRA – Including Authorization	First Aid Training	SHEQ COP Level 1	COP 25: 2.9.2. Legal Exams	COP 25: 2.6.1 and 2.9.2 Legal Exams	COP 25: SHE REP	COP 56: Lifting equipment & lifting tackle	COP 94: Perform Hot work	COP 53: Lock Out	COP 59: Operate TMM (Foskor License and Open Pit	COP 96: Working at Heights	COP 93: Working on a conveyor belt	COP 94: Operate gas cutting equipment	Basic fire fighting	Artisan (red seal)	COP 96: Mobile Elevating Work Platform	COP 95: Confined Space	COP 86: Noise	Drowning Hazard & Water Rescue	COP 62: General electrical equipment	Radiation Awareness	ISO 14001 Awareness	Environmental Awareness	ISO 9001 Awareness
Require authorization		Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes															
Requirement based on risk assessment		Yes	Yes	Yes								Yes					YES					Yes				
Comp nr	Name																									

Legend:

Completed training	√
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Trained & authorized as per COP	A
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Outstanding	X
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23.PARAMETERS

23.1. Design parameters

All plant and equipment will be designed to:

- Operate satisfactorily under atmospheric, ambient and other conditions present at the site location
- Ensure interchangeability of units and/or sub parts throughout the plant to reduce spares holding requirements – take old plant equipment into account
- Ensure reliability and maintainability. A minimum availability of 98% is required
- Operate without undue vibration, stresses (temperature and built in) and excessive noise
- Comply with legal requirements in terms of the water license and DWA

23.2. Layout Parameters of the site

A feasibility and pre-engineering study has been completed, and the site parameters are clearly defined therein.

24.SITE GEOGRAPHY

The plant is located at Phalaborwa, Limpopo, South Africa

AMBIENT CONDITIONSS

- Ambient temperature

Summer	35 Degrees Avg	50 Degrees Max
Winter	17 Degrees Avg	2 Degrees Min

- Site Altitude: 380m
- Prevailing wind direction: Generally South Easterly - Maximum design velocity 40m/s (144km/h)
- Very dusty conditions
- Average annual rainfall = 540 mm

25.FOSKOR GENERAL ENGINEERING SPECIFICATIONS

The below-mentioned general engineering specifications shall be consulted prior to finalization of any design or specification).

 FOSKOR LIMITED	GENERAL ENGINEERING SPECIFICATIONS INDEX	DOC NO: Index REVISION: 0 ISO 9001 REF: 7.5.1 ISO 14001 REF: 4.4.6 OHSAS18001 REF: 4.4.6
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DOCUMENT NUMBER	DOCUMENT TITLE	REVISION NUMBER	DATE REVISED	LOCATION
GS001	General Design Information	0	01/11/2011	
GS002	Engineering drawings	0	01/11/2011	
GS003	Quality control procedures for general fabrications	0	01/11/2011	
GS004	Site work associated with civil construction works	Future		
GS005	Concrete and formwork	0	01/11/2011	
GS006	Masonry and building work.	Future		
GS007	Plate and workshop fabrications	0	01/11/2011	
GS008	Welding standards and procedures	0	01/11/2011	
GS009	Structural fabrication and erection.	0	01/11/2011	
GS010	General Mechanical Equipment	Future		
GS011	Piping	0	01/11/2011	
GS012	Pressure vessels	0	01/11/2011	
GS013	Painting and Protective coatings	0	01/11/2011	
GS014	Rubberlining	0	01/11/2011	
GS015	Fencing	0	01/11/2011	
GS016	Roofing and side cladding	0	01/11/2011	
GS017	Fuel for use in combustion engines	0	01/11/2011	
GS018	Lubrication	0	01/11/2011	
GS019	Bund walls for liquid containment	0	01/11/2011	
GS020	General Purpose Valves	0	01/11/2011	
GS021	Gearboxes	0	01/11/2011	
GS022	Repair of Chain blocks and Lever hoists	0	01/11/2011	
GS023	Slurry Pumps	Future		
GS024	Overhead Cranes	Future		
GS025	Conveyors	Future		

Contrator /Supplier - Please ensure that you have the latest copy of Specifications before any activity is committed

SPECIFICATION NUMBER	REVISION	TITLE
GV - 1	Latest Revision	General Engineering Specifications Mine Health & Safety Act for contractors
GV - 2	Latest Revision	Conditions for admission to and employment within the Foskor works
GM - 3	Latest Revision	Surface preparation and protection specification
GM - 2	Latest Revision	Engineering Specifications – Mechanical erection
GS - 1	Latest Revision	Engineering Specifications – Structural steel work, plate work, fabrication, and installation.
GC-1	Latest Revision	Engineering Specifications – Civil, excavation and concrete work
GC-3	Latest Revision	Engineering Specifications – Packing and grouting
GQ-1	Latest Revision	Engineering Specifications – Quality control
GI-4	Latest Revision	Instrumentation specifications
GA - 2	Latest Revision	Recording of underground services & structures
GS - 2	Latest Revision	Metal roofing & cladding of structures

GM - 1	Latest Revision	Mechanical Equipment
GM - 5	Latest Revision	Pipe standards
GM - 6	Latest Revision	Engineering drawing & document requirement
Foskor Electrical Specifications	Latest Revision	Foskor Electrical Specifications
Applicable FOSKOR COP's	Latest Revision	Applicable FOSKOR COP's

ELECTRICAL SPECIFICATIONS		
SPECIFICATION NUMBER	REVISION	TITLE
EE-1	Latest Revision	Motor Control Centre & Switchgear
EE-2	Latest Revision	Squirrel Cage Induction & Wound Rotor Motors
EE-11	Latest Revision	Power Factor Correction Equipment
GE-1	Latest Revision	Design Criteria for Electrical Installations
GA-1	Latest Revision	Procedures for Enquiries & Tenders
GD-1	Latest Revision	General Requirements for Design, Project Management & Tenders
GD-2	Latest Revision	Engineering Change Order (E.C.O) Procedure
GM-1	Latest Revision	Mechanical Equipment
GM-5	Latest Revision	Pipe Standards
GM-6	Latest Revision	Engineering Drawing & Document Requirements
GM-8	Latest Revision	Surface Protection
GM-3	Latest Revision	Painting & Surface Protection of Steel
GS-1	Latest Revision	Structural Steel work & Plate work Fabrication & Erection
GQ-1	Latest Revision	Quality Control
GI-1	Latest Revision	General specifications & Procedures
GI-2	Latest Revision	Installation & Commissioning
GI-3	Latest Revision	General Equipment Specification

GI-4	Latest Revision	Field Instrumentation Specification
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26. PROJECT MANAGEMENT - SERVICE PROVIDER

- 1) Nominate a single window of communication to FOSKOR – Typically the appointed Bidder's 2.6.1
- 2) Attend meetings as agreed during the project kick off meeting.
- 3) Submit Progress reports (Format & interval) as defined in the Kick-off Meeting (Invoicing, Labour, Performance against plan, service provider purchases, Quality Management, Safety, Etc.
- 4) Manage and participate in the "Daily Journal" as part of executing the project.
- 5) All meetings will be held at FOSKOR offices, unless otherwise stated.
- 6) The Bidder to provide updated project management plans on progress as defined by the FOSKOR Project Engineer

27. LIAISON AND CO-OPERATION WITH OTHERS

- 1) The Bidder shall be required to co-operate and liaise with FOSKOR appointed project manager(s)
- 2) The Bidder must note that construction is within an operational plant.
- 3) The Bidder may be required to work in conjunction with the FOSKOR appointed structural-, electrical-, equipment- and instrumentation installation contractor.
- 4) The Bidder must be willing to work with other CPS service providers should it be required by FOSKOR.
- 5) The Bidder is encouraged to source from local supplier (where feasible)

The Bidder shall participate in social development initiatives.

28. GENERAL CONDITIONS

- Extension on the promise completion or Milestone date may be requested but needs to be approved by FOSKOR. The contractor should be in possession of a formal document issued via FOSKOR Procurement indicating that this request was approved
- Any additional works not defined in the order needs to be approved by FOSKOR in writing before any work commence

Description	Condition	Duration
Penalties	0.5 % per Week	Late Delivery after promised completion date
Performance Bond	0% of Contract Value	0 Year after completion
Retention	5 % of Contract value	Release after 12 months of Commissioning of the system
Type Of Contract	None	None
Tender price validity	3 months	
Escalation	None	None

On project completion, the contractor will issue FOSKOR with a Project file with findings and all work done evidence and the Handover certificate which will be signed off by:

- i. Bidder's site representative

- ii. Foskor representatives

The handover certificate will be accompanied by the following document.

- i. Quality file
- ii. Safety File
- iii. Design documents
- iv. As built drawings
- v. Manuals and commissioning documentation

29. TENDER EVALUATION CRITERIA

As part of the process to assist with the evaluation of the bidder's proposal/quotation and to make an informed decision in the awarding of this tender, the following shall be adhered to

- 1) The following tender evaluation criteria will be used for adjudicating the Contractor submitted tender.
- 2) Provide the required documentation as requested in the "Proof / documents to be submitted" column of the Pre-qualification, Technical and Commercial evaluation tables below. Be specific when submitting documents by ensuring it answers the item specified in their respective Annexures e.g. Information required to be filed under Annexure A, shall be filed, and submitted under Annexure A,
- 3) Please use the annexure number as indicated to identify proof submitted.
- 4) Failure to submit the relevant documentation as requested in the Evaluation criteria document may lead to a disregard of the submitted tender.

TECHNICAL EVALUATION CRITERIA

Technical Criteria Description	Max. % Contr.	Proof/documents to be submitted	Note/ filing
Separation of Paralleled Transformers			
1. Experience - length - team competence			
a) Organogram and CVs Scoring: - No submission..... 0% - Only organogram or CV provided ... 7.5% - Organogram and CV provided 15%	15%	Organogram indicating relevant experience for technical team that will be involved in this project. Highlight team leaders for the teams. Provide A CVs indicating relevant experience on RMU, cable and protection installation and commissioning.	Annexure A
b) Company experience- Number of RMU installation projects Scoring 0 project.....0% 1-4 projects.....7.5% >4 projects15%	15%	Give reference list with: - project names - project technical description - valid contact numbers of client of the previous RMU and cable installation project. - Project value	Annexure B
2. Capacity and Capabilities and Quality			
a) Project execution methodology Scoring: - No document submitted----- 0% - The technical approach and/or methodology is poor and unlikely to satisfy the project objectives or requirements. The tenderer has misunderstood certain aspects of the scope of work----- 7.5% - The approach is efficient. The bidder has good understanding of the requirement of the SOW. The methodology depicts ways to execute the project within time and without negligence to safety ---15%	15%	Provide a methodology on how you will execute the project within time, considering all technical aspects and safety requirements.	Annexure C
b) Ability to execute the project as per the requirements. Scoring: - Proof provided-----0% - Proof provided-----10%	10%	Provide proof as the OEM of the RMU or as certified for the installation and commissioning of the RMU to be installed.	Annexure D
c) Detailed project schedule/ WBS Scoring: - No plan submitted -----0% - Plan with no team's allocation per task--- 7.5%	15%	- Provide detailed Project Schedule/WBS for the execution of this contract. - The project schedule must include all tasks, duration, and team allocation	Annexure E

• Detailed plan showing teams per task--15%			
d) Quality Planning, Quality assurance plan, Quality Control, conductor handling and installation plan Scoring: • No response/ no document submitted-- 0% • Only quality plan for this project or previous quality plan provided -----5% • All requested documents submitted-- 10%	10%	• Provide quality plan for the execution of the project. • Provide the quality control plan for the manufacturing of the RMU and ISO9001 certificate from the manufacture.	Annexure F
3. Legal, Environmental and safety compliance,			
a) Environmental compliance procedure or plan Scoring: No procedure/plan provided-----0% Procedure/plan submitted -----10%	10%	• Provide procedure or plan for environmental compliance. Indicate compliance on animals, pollution and waste management.	Annexure G
b) Company safety officer appointment Scoring: No safety officer appointed-----0% Proof of safety officer appointment -----5%	10%	• Provide proof of safety officer appointment.	Annexure H
4. Training			
TOTAL SCORE	100%		
To qualify for the second evaluation phase (commercial) your company need to score a minimum of 70% on the technical evaluation			

30. PRICING SCHEDULE

Tender No.: FOSPHB-RFP-25/26

Description: FOSKOR Mine –Separation of Paralleled transformers

Pricing conditions:

- Quotation prices to be valid for at least the duration of the contract period.
- Attached to the official quotation, the Bidder is to submit a detailed description of intended rate increases if any. (As an example, increases based CPI adjustments)
- If any minimum requirements may alter or added for whatever reason, they will be brought to the attention of the bidder before the closing date for the submission of tenders or be added and highlighted on the tender.
- Any other optional support or guarantee not mentioned in this scope may be noted on the official tender.
- ROPS to be included in transportation pricing.
- A mandatory site meeting will be scheduled to take the Traffic specialist to the site to clarify the requirements of the scope.
- Any additions to the scope (based on the knowledge and experience) should be conspicuously indicated and quoted accordingly.
- Contractor is fully liable for the compliance of the entire project.

- i. Amendments, corrections, or alternatives necessary for legal and/or technical compliance should be clearly stipulated in a company cover letter.
- j. Please only make use of this pricing schedule for pricing
- k. Failure to submit your company's bid on this pricing structure will result in the immediate disqualification.
- l. Daily progress meetings with the Foskor team and the engineer will be communicated and conducted by the engineer.
- m. The actual number of all quantities on the BOM, including the quantities to be re-measurable upon awarding of tender and shall be invoiced accordingly.**
- n. It is the responsibility of the BIDDER to evaluate the Foskor site and actual working conditions. A site visit can be arranged.

UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	–	Percent	m ³	–	cubic metre
h	–	Hour	m ³ .km	–	cubic metre-kilometre
ha	–	hectare	mm	–	millimetre
kg	–	kilogram	MN	–	meganewton
kℓ	–	kilolitre	MN.m	–	meganewton-metre
km	–	kilometre	MPa	–	megapascal
km-pass	–	kilometre-pass	No.	–	number
kPa	–	kilopascal	P C sum	–	Prime Cost sum
kW	–	kilowatt	Prov. sum	–	Provisional sum
ℓ	–	litre	sum	–	lump sum
m	–	metre	t	–	ton (1 000 kg)
m ²	–	square metre	W/day	–	Workday
m ² .pass	–	Square Metre-Pass			

PRICING SCHEDULE / SCHEDULE OF QUANTITIES

NUMBER	ITEM DESCRIPTION	QUANTITY	PRICE (R)	AMOUNT (R)
1	Supply 11KV RMU.	3		
2	Supply trip/alarm annunciator	6		
3	Supply BTU	3		
4	Supply Kiosk	3		
5	Supply 185mm XLPE cable	600m		
6	Supply 2.5mm cable	300m		
7	Supply cable accessories and consumables	Sum		
8	Supply material for construction of a plinth	Sum		

