

SPECIFICATIONS AND SCOPE OF WORK

Tender No.:

Description: Upgrade, Supply , Install, and commissioning of a skid (2SKD0014).

1. INVITATION TO TENDER

This document prescribes the requirements *for upgrading*, Supply, Installation, commissioning and electrical protection settings calculation and implementation on the mining skid (Mobile substations with 11 KV/ 3.3 and 11KV/ 525 V transformers) -2SKD0014.

1.1. SCOPE BACKGROUND

The skid electrical apparatus and equipment must be supplied, installed, and tested to ensure that all the functionality of all the equipment as per the detailed scope in this document. The calculation and implementation of electrical protection settings and earthing resistance survey for this skid need to be also done.

1.2. 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.

2. SPECIFICATIONS

The Service Provider will supply, install, and commission the equipment as per the specifications and the manufacturers' requirements. Commissioning of the skid includes the equipment supplied by Foskor.

2.1. Equipment to be supplied by Service provider.

- 1x Dry type 525V Neutral Earthing Resistor (NER) for 3MVA 11KV/525V transformer
- 2x 11KV switchgear panels with relay and breaker (Protection scheme) including CTs.
- 1x 3.3kV switchgear panel with relay and breaker (Protection scheme) including CTs.
- 1x 525V master pact panel
- 2X 525 MCC panels with 525V earth leakage circuit breakers and soft starters
- 1x 3.3 MCC panel with vacuum contactor

- 1x 400V/230V/110V distribution panel
- 1x 230AC/32VDC Battery Tripping Unit (BTU) panel (Including batteries).
- 2x Air conditioners
- 4x Lights(outside)
- 1x LED lights 200W
- 16A 3 pin plug
- Data Pack
- Original Tests report
- Original certificates

2.2. Required Spares

- 1x 11KV spare breaker
- 2x 7SR1103 spare relay
- 1x 100-200/1 spare current transformers set (3 CTs)

2.3. Equipment to be supplied by Foskor.

- 1250 KVA 11KV/3.3KV transformer
- 3.3KV Dry type NER
- 3000KVA 11KV/525V transformer
- Skid (trailer and control room/container)
- 25KVA 11KV/400V transformer

2.4. Skid size information

- Trailer size L = 7m, B = 4m
- The control room/container size: L= 4m, B=4m, h= 2.7m
- The service provider will measure all cables and supply (95mm SQ 3core PVC cables
- The Service provider to supply control cables and wire the circuits

3. DETAILS OF SPECIFICATIONS

3.1. 3x 11KV breakers

Description	Requirement	Comments
Arc extinguishing medium	Vacuum	
Voltage	17, KV	
Impulse withstand voltage	95 KV	

Current rating	630A	
Short time withstand current	31,5 KA for 3 seconds	
Short circuit breaking current	31,5 KA	
Frequency	50 Hz	
Operating mechanism	30V dc	
Cable and busbar earthing facilities	Yes	
Fully interlocked for safety	Yes	

3.2. 3.3KV breaker

Description	Requirement	Comments
Arc extinguishing medium	Vacuum	
Voltage	17, KV	
Impulse withstand voltage	95 KV	
Current rating	2500A	
Short time withstand current	31,5 KA for 3 seconds	
Short circuit breaking current	31,5 KA	
Frequency	50 Hz	
Operating mechanism	30V dc	
Cable and busbar earthing facilities	Yes	
Fully interlocked for safety	Yes	

3.3. 525V Protection

Schneider Master pact NW series breaker with micrologic 7 relay and the following specifications.

- In=2500A
- Overcurrent and Earth fault IDMT protection
- Earth fault minimum current setting of 25A
- Breaker must be supplied with curve direct software.

3.4. 525 MCC Earth leakage circuit breaker

Description	Requirement
Type	Earth leakage CB with overload and short circuit protection (3-pole)
Rated Current	600 A
Sensitivity (I Δ n)	100-300-500mA
Short Circuit current	25kA / 3s @ 525V
Rated Voltage (Ue)	380-480-550V
Frequency	50Hz
Operating time	0.45-1.0-2.0s

3.5. 525V Soft stater

Description	Requirement
Make	Weg
Type	Direct on line SSW06
Rated Current	412 A
Frequency	50 Hz
Line	220 - 575 V
Output	220 - 575 V
Rated voltage	525 V
Control supply	90-250 VAC

3.6. 3.3KV MCC Vacuum contactor specs

Description	Requirement
Type	Direct on line 3 poles/3 phases
Rated insulation voltage	7.2KV
Rated operational current	200A
Short circuit interrupting capacity	4KA
Frequency	50 Hz
Rated control voltage	30V DC /230V AC

3.7. 3x sets of 11KV Current transformers specs.

Description	Requirement
CTR	100 & 200/1 ratios
STC	32KA/s
Frequency	50 Hz
Class	10P10
Rated voltage	11KV
BIL	12/28/95 KV

3.8. 3.3KV Current transformers specs

Description	Requirement
CTR	100 & 200/1 ratios
STC	32KA/s
Frequency	50 Hz
Class	10P10
Rated voltage	3.3KV
BIL	12/28/95 KV

3.9. Protection Relays spec for both 3.3kV and 11kV (total of 4 relays)

Description	Requirement
Manufacture	Siemens / Reyrolle
Name	Argus
Model	7SR1103-1MA12-1CA0/FF
Frequency	50 Hz
BI	19
Vx	24-250V DC; 100-230V AC

3.10. Protection Switchgear control requirements

Requirements	Comments
CT Test block	For relay testing
Ammeter	For current measurements
Control switch	Trip and close breaker
Trip 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
Relay	OC and EF protection
Indication panels	Transformer and NER alarms and trip indications

3.11. Battery Tripping Unit (BTU) specs

Description	Requirement
Manufacture	Acton/Static power
Input Voltage	230VAC
Output voltage	30VDC
Frequency	50 Hz
Battery type	Alcad Nicad 49AH batteries

3.12. 2x Air conditioners specs

Description	Requirement
Manufacture	Samsung or Alliance
Capacity	24000BTU
Type	Split type
Power source	220-240 VAC

3.13. Lights specs

4x 400W LED lights for outside roof top.

4X 40W led tube lights for MCC room.

4. SCOPE OF WORK

4.1. BACKGROUND DOCUMENTATION

N/A

4.2. SCOPE - EXTENT OF WORK OR SERVICE REQUIRED

4.2.1. General Scope Considerations:

Note: Contractors must perform all the tests and advise on any additional tests that are deemed as requirement for the skid as per the below scope:

4.2.1.1. Transformers and NERs tests

- Tests on 11KV/3.3KV, 11KV/525V and 11KV/400V transformers together with 3.3KV and 525V NERs must be conducted as below:
 1. Insulation resistance test
 2. Transformer ratio test
 3. Transformer winding resistance test
 4. Transformer magnetizing current test.
 5. Transformer protection testing (Buchholz, winding temperature, oil temperature, NER, PRV) for alarm and trip.
 6. Transformer NER primary and secondary injection for checking its performance.
 - a. NER CT testing for insulation resistance, ratio, polarity, winding resistance, and Magnetization curve.
 - b. Alarm and trip testing of NER (Adit relay) through primary injection.
 - c. NER protection testing (Oil temperature) for alarm and trip.

4.2.1.2. Switchgear test

- Circuit breakers must be tested for the ductor test and speed test for trip and close operation.
- The spring motor must be tested for electrical charging, and all interlocks must be tested for functionality.

4.2.1.3. Current transformers tests

- Each circuit breaker has 3 Current transformers (One in each phase) which must be tested for insulation resistance, ratio, Winding resistance, Polarity, and magnetization curve test.

4.2.1.4. Protection relays tests

- Each Circuit breaker is installed with one Overcurrent and earth fault protection relay and one transformer protection relay. These relays needed to be tested with secondary injection for their protection characteristic and trip time according to the settings provided. Each Transformer protection must be tested for both alarm and trip condition.
- All other alarms on the protection scheme must be tested for functionality.

4.2.1.5. Master pact breaker tests

- Dielectric Tests
- Fault Current Tests

4.2.1.6. Vacuum contactor tests

- Contactor Resistance Tests
- High Potential Tests
- Leak Rate Tests

4.2.1.7. Earth leakage breaker tests

- Fault Current Tests

4.2.1.8. Soft stater tests

- Resistance Tests

5. ELECTRICAL PROTECTION SETTINGS CALCULATION FOR CORRECT GRADING

- Foskor has conducted the electrical protection grading study for 11 KV and above circuit. The vendor will be supplied with current 11 KV settings and fault levels (18 Kilo Ampere). The vendor is required to calculate the protection settings for secondary side of the transformer feeders (3.3KV and 525V) for correct grading and implement them to the skid.

6. CABLING

- All cables entries must be sealed, and cables be painted with fire retardant paint.
- Cables must be installed and arranged neatly on the skid to provide a safe working area for operators.

7. EARTHING STUDY

- The soil resistivity test needed to be performed in different areas of North pit.
- The earthing resistance value needed to be calculated with the safe step and touch potential values.
- Earthing must be done according to COP62. **ALSO REFER TO ANNEXURE 62.13**
- The correct and safe earthing procedure needed to be submitted to Foskor which is in accordance with relevant SANS.

8. SPARES

- The contractor must bring all the required equipment, tools, and spares in case of a need to repair or replace on the skid.

9. SAFETY

Service provider to refer to the full and updated Foskor COP's available:

- The service provider and sub service providers need to always comply with the Mine Health and Safety act. All Foskor COP's Policies and procedures needs to be adhered to.
- A service provider 2.9.2 to be permanently on site.
- Medical, Induction, Foskor ID Card, etc. is approximately R800 per Person. (Valid for one year) Exit medicals need to be done at termination of contract.
- The Successful tenderer will be required to compile a Foskor Work permit and at least 2 weeks should be allocated for this. The service provider must provide the following appointed persons in terms of the MHSA: 2.6.1; 2.9.2 and Section 29(1) – SHE REP for the duration of the contract.
- All vehicles and cranes and other TMM's to be inspected before entering Foskor Premises. All LDV's and trucks must have a copy of the brake test and a illumination test report with a Foskor pre use checklist filled in correctly.
- The service provider must compile a Safety File as per Foskor standard for all service providers and sub-service providers.
- Site access will need to be controlled and all persons must receive site specific induction before entering the site.
- Conduct inspections as per Foskor Safety System. Analyse data and trends and recommend preventative measures where required.
- Ensure all authorizations are in place as per the Foskor Safety System. Arrangement with Foskor training to be done by the service provider to ensure that authorization and training is conducted. Arrange timeously.
- Ensure all workers competencies are available and have been validated for the work to be performed.
- Ensure proper security, sign boards, fencing and barricading is in place on site where applicable to protect all material, spares, tools, etc.
- The service provider shall in general comply with the FOSKOR General Engineering Specifications, COP's, latest revisions, and all relevant regulations.
- The service provider must complete a Baseline Risk Assessment (COP 01) before a work permit can be issued for the installation.
- All service providers not in possession of a valid Foskor ID card will have to complete the Foskor induction course and will have to undergo a medical examination at the Foskor clinic for the service provider's account.
- The service provider shall be responsible for coordinating and integrating his schedule and responsibilities with other FOSKOR appointed contract manager on site for this Scope of Work.
- All personnel operating mobile equipment including LDV's must have a Foskor driver's permit.
- An open Pit Licence is required for driving in the mining areas.
- All the required PPE and Safety Equipment are for the service provider's account.
- All service providers must ensure that:
 - 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 service provider Supervisor.
 - c. Training is provided in the correct use of PPE to workers. Proof to be submitted in the safety file.
 - d. Daily inspections are done on PPE.
 - e. The registers will be completed at least monthly on findings on PPE. (All PPE must be kept in good condition)
- xx. All providers of services need be informed of the following minimum training is applicable to all service providers (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 service providers must ensure that the training is sourced through accredited external training companies:
 - a. Basic health and safety principles
 - b. HIRA
 - c. First Aid Training. Proof of training to be included in the safety file.
- xxi. 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.
- xxii. Training certificate will be accepted if complying to the following:
 - a. Unit Standard Title
 - b. Learner Full name
 - c. Learner ID number
 - d. Competency achieved.
 - e. Date of Assessment
 - f. Assessors signature
 - g. Training provider logo
 - h. Training provider registration number and accreditation number.
 - i. Seta logo

10. LEGISLATIVE REQUIREMENTS – SUMMARY

10.1. Minimum Legislative Requirements:

The successful or appointed service provider shall comply with:

- i. The Mines Health and Safety Act with Regulations (Latest revision)
- ii. The National Road Traffic Act with Regulations (Latest revision)
- iii. All applicable national and international legislative requirements and regulations.
- iv. FOSKOR (Pty) Ltd. COP (Code Of Practise) No. 25 for Service provider Control (Available on request)
- v. FOSKOR (Pty) Ltd. COP (Code Of Practise) No. 59 for Trackless Mobile Machinery (Available on request)
- vi. All FOSKOR (Pty) Ltd. safety, health, quality and environmental procedures applicable to the successful application of the contract. (Available on request)
- vii. All FOSKOR procedures and policies applicable to the successful application of the contract. (Available on request)

10.2. Summarised requirements/extracts from FOSKOR COP's

- 9.2.1 Before entering and operating a service vehicle (Own vehicle) on the FOSKOR site, the appointed service provider shall:
 - i. 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)

- ii. The appointed service provider shall, before entering and operating a vehicle or trailer on the Foskor premises:
 - a. Obtain permission from the Foskor Safety & Security manager to operate his nominated service vehicle/s or trailers on the Foskor site. (Forms will be provided)
 - b. 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 (Exclude Fridays) at the Light Vehicle Maintenance workshop.
 - c. Submit the above permission and COF in at the main security office for issue of a vehicle access disk.
- iii. Ensure that his service vehicles / trailers have been inspected (Daily) in accordance with the Foskor standard (COP 59) to ensure that they are safe and fit for use. (Foskor pre-use format per vehicle is available in the Annexures) See Foskor COP 59, Trackless Mobile Machinery for details.

- 9.2.2. Before entering and working on the Foskor site the appointed service provider shall ensure that his workmen are:
- i. Briefed on the required task and have been informed of any abnormal conditions/situations.
 - ii. Physically, emotionally and mentally fit to perform their duty.
 - iii. 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.
 - iv. Before commencement of work:
 - a. All tools and equipment shall have been inspected and tested to be in a good and safe working order.
 - b. All workmen have participated in the completion of a standard Foskor site risk assessment (Commonly known as a HIRA or Hazard Identification and Risk Assessment) and taken appropriate actions to mitigate any identified hazards.
 - c. The job card is signed on and the equipment is signed over for the work to be completed.

- 9.2.3 Before entering and working on the Foskor site the appointed service provider shall ensure that his portable electrical equipment have been tested and declared safe to use by the Foskor RESPONSIBLE Electrical Workshop. Switching, isolation, test for power and barricading are Foskor functions. It will be witnessed by the contractor before Lock Out is performed by all personnel **working on the equipment** and the register is signed. The HIRA will be discussed and signed by all. Then the work may start.

11. PERMIT TO WORK

Before any on-site work under this contract may commence, the appointed or successful service provider shall obtain from Foskor a PERMIT TO WORK. The following guidelines are provided to assist the appointed service provider in obtaining a PERMIT TO WORK. (See Foskor COP 28 Permit to work and COP 25 Control of Externally Provided Processes, Products and Services (Service provider Control) for details):

- i. The PERMIT TO WORK can be obtained from- and on completion returned to the Legal Administrator, Foskor Safety department.
- ii. Obtain a contract number from the Foskor procurement or projects department.
- iii. 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.
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.
Attend a hour long legal exam briefing any Thursday between 08:00 and 09:00 at the Security training hall.
Write legal examination any Friday between 07:30 and 10:30 at the Security training hall. (Please pre-book)
- iv. 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.
The designated SHE Rep must have the ability to read, write and express him/herself.
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 015 789 2531

A pre-requisite for attending the SHE-Rep training course is successful completion of Basic Health & Safety Principals- and HIRA training.

See Foskop's COP 5 Health and Safety Representatives for details.

- v. Provide a name list, including ID numbers, residential and postal addresses and telephone numbers of all the appointed service provider's on-site employees.
- vi. All the appointed service provider's on-site employees shall undergo a full medical examination at the Foskop on-site Clinix Clinic. The clinic can be contacted at 015 789 2427 for an appointment.
- vii. Women who are pregnant or suspect that they may be pregnant must notify the examining medical practitioner. Please note: All NEW- and employees LEAVING the service of the appointed service provider must undergo a full entry or exit medical examination.
- viii. The appointed service providers designated on-site drivers shall receive competence testing and authorisation to operate vehicles on the Foskop site.
- ix. All the appointed service providers' employees shall receive/have received training in:
 - a. First aid level 1 (Provide own training)
 - b. Working at heights (Provide own training)
 - c. Basic Health & Safety Principals (Provide own training)
 - d. HIRA (Provide own training)
 - e. Basic firefighting. (Provide own- or receive Foskop training, contact 015 789 2531 to book)
 - f. Lock out. (Provide own- or receive Foskop training, contact 015 789 2531 to book)All training not provided by Foskop must be verified by the Foskop training superintendent Mr. Johan Fouche. Please contact him on 015 7789 2525 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.
- x. All the appointed service providers' on-site employees shall receive the basic Foskop site induction training at the Foskop Security office.
- xi. All the appointed service providers' on-site employees shall receive site specific induction training provided by the Foskop area Regulation 2.6.1 appointee/s.
- xii. A BRA (Baseline Risk Assessment) shall be completed for ALL "typical" tasks that will be completed under this contract. The BRA to be approved by the responsible Foskop MHSA 2.13.1 appointee and signed by all of service providers employees. Make use of Foskop's own BRA document, Annexure 1.2, contained in COP 1, Risk and Opportunities Management (Available on request)
- xiii. Attach a detailed SCOPE OF WORK describing the required task and -outcome of this contract.
- xiv. All Foskop's appointed MHSA Regulation 2.9.2, 2.6.1, 2.13.1 and 3.1.a managers must undersign/approve the PERMIT TO WORK in their area of responsibility.
- xv. Registration and proof of payment under the Compensation for Occupational Injuries and Diseases Act, no. 130 of 1993. Registration number must be provided.
- xvi. SARS issued tax clearance certificate.
- xvii. All relevant documentation and/or evidence of compliance must be attached to the PERMIT TO WORK.
- xviii. Upon successful completion and approval of the PERMIT TO WORK the security department will issue the appointed service providers' employees with access ID cards.
- xix. 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.
- xx. The appointed service provider must allow at least three to ten working days to complete all the PERMIT TO WORK requirements.

12. SAFETY FILE

The appointed contractor 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 contractor in compiling a SAFETY FILE:

Before any work may commence, the appointed service provider must, IN CONJUNCTION WITH THE FOSKOR SAFETY DEPARTMENT, compile a SAFETY FILE specifically for THIS contract. (Contact the area responsible safety representative, Ms Nnete Napo at 015 789 2547 / nneten@foskor.co.za or attend the monthly service providers meeting every 2nd Monday of the month (3rd Monday if 1st or 2nd Monday a public holiday) at 13:30 in the Foskor Plant Training Hall)

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Z. COP98: Water Safety

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AA. COP99: MCOP Risk Based Fatigue Management

AA

COP100: MCOP Medical incapacity due to ill health

COP102: MCOP Risk-Based medical Care on Mine Premises

BB. COP101: MCOP Right to Refuse Dangerous Work or Withdraw
from dangerous Workplace

BB

CC. COP103: Use of Mobile Devices on Mine Premises

CC

DD. COP104: MCOP the Prevention of Fires at Mines

DD

NOTE: 1) A Foskor representative may add or remove any other Foskor safety, health, quality and environmental policies and/or procedures deemed applicable.
2) If a COP is not applicable to this contract/project, please complete and attach the "Not applicable" form in the space of the COP

TYPICAL CONTENTS OF SAFETY FILE:

- i. Title and index cover page
- 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 Foskor COP 25, Service provider control.
- v. A copy of LME (Lifting Machine Entity) registration certificate with the Department of Labour.
- vi. Copy of LMI (Lifting Machine Inspector) registration certificate with the Engineering Council of South Africa in the employment of the service provider.
- vii. Base line risk assessment of ALL and ANY POTENTIAL tasks that may be performed on site under this contract. See Foskor COP 26, Critical Task Descriptions for details.
- viii. Copies of critical task descriptions and standard operating/maintenance procedures.
- ix. Copies of the appointed service providers safety, health, environmental, HIV and AIDS, smoking and waste management policies.
- x. Training records of all on-site employees.
- xi. Employee records of actual time worked (Normal and overtime).
- xii. Copy of on-site induction training.
- xiii. Records of inspections of TMM (Trackless Mobile Machinery) and trailers. See Foskor COP 59, Trackless Mobile Machinery for details.
- xiv. Records of issues and inspections of PPE (Personal Protective Equipment) and safety equipment. See Foskor COP 65, Personal Protection Equipment for details.
- xv. Records of issues and inspections of PEE (Portable Electrical Equipment). See Foskor COP 60, Portable electrical Equipment for details.
- xvi. Records of issues and inspections of tools and equipment. See Foskor COP 63, hand tools for details.
- xvii. Records of daily, weekly and monthly 2.6.1 / SHE Rep safety inspections. See Foskor COP 22, SHE Inspections for details.
- xviii. Records of daily green-area and safety talks. See Foskor COP 7, Communication for details.
- xix. Any other documents, certificates or records as requested by a Foscok official deemed necessary to ensure that all safety, legislative and administrative requirements have been met.

Note: The bidder / Service provider can obtain an updated CD/Disk with all Foscok COPs from Theodora Nazima at the Projects Department on 015 789 2249.

COP 25 – CONTRACTORS LEGAL OBLIGATION AND MINIMUM REQUIREMENTS

Contractor must comply to the requirements below within 4 weeks from awarding the contract unless otherwise agreed with 3.1 and SHE Manager within 10 days from the awarding of such contract

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
Definition	Consultations, Salespersons, Foskor arranged and organised visitor groups, Family of injured employees	Deliveries, Consultation, Specialist, Auditors for less than 5 days and do not exceed 4 visits per year	Contractors working on the Mine premises for period more than 6 day but less than 1 month.	Duration of work is longer than 1 month	Duration of work is irrelevant. (Only focus on Risk exposure)
Special conditions	May perform no work on site	May perform no physical work on site that will involve tools, equipment, or machinery.	- No work that relates to life saving behaviours e.g., Construction, Conveyors, Lifting, Electrical, Lock-out, Working at Heights, Hot work. - Specialist and consultants (experts) working in teams smaller than 5 for less than 1 month on site.	No construction work or work that relates to life saving behaviours e.g., Conveyors, Lifting or Rigging, Electrical maintenance, Lock-out, Hot work, confined spaces, use of TMM's, Working at heights	This includes all work relating to <u>relates to life saving behaviours</u> (risk work) and therefore must comply to relevant training and Authorisations as required in the Foskor COPs before work can start and permits signed.
Supervision	The organiser is responsible for the group. The visitors <u>must</u> be accompanied by a Foskor Regulation 2.9.2, Regulation 2.6.1, or legally appointed person.	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide dedicated Regulation 2.9.2. with proof of competency and direct supervisor. Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide <u>dedicated</u> Regulation 2.6.1. and Regulation 2.9.2. appointees with proof of competency. The Regulation 2.9.2 appointee must have technical competency and experience in line with scope and trained in the in all aspects as defined in Baseline risk.
Medical Surveillance	Only completed a declaration of fitness and health matters relevant to visit	Shortened medical surveillance Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic
Permit required	Day Permit is obtained at Security (Valid for 1 day)	Short term ID card at Security Return permit to Security when completed. (Permit each day)	Short term ID card at Security Permit to work at Foskor is required unless Specialists or Product experts. Return Permit to Security when work is complete	Permit to work at Foskor. Permanent ID at security Return Permit to Security when work is complete	Permit to work at Foskor. Permanent ID at security Return Permit to Security when work is complete

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
Induction	SHEQ Induction pamphlet only	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet
Minimum training	None	None	1. First Aid Training 2. HIRA 3. Understanding Basic Health and Safety Principles	1. First Aid Training 2. HIRA 3. Understanding Basic Health and Safety Principles <u>PLUS</u> , all training as defined in Baseline risk assessment and Scope (COP 1)	1. First Aid Training 2. HIRA 3. Understanding Basic Health & Safety <u>PLUS</u> , all training as defined in Baseline risk assessment and Scope (COP 1). When construction or maintenance work is done – minimum 1 artisan per team.
Letter of Good standing	Not required	Not required	<u>May</u> be required (dependant on scope) and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing

Reminder of Risk identification – LIFE SAVING BEHAVIOURS

1. Trackless Mobile Machinery
2. Working at Heights
3. Lock-out
4. Lifting Machinery
5. Working with live electrical installations
6. Confined spaces
7. Machine guarding
8. Conveyors
9. Machine Safety Devices

Risk assessment is also on life saving behaviours – but this is applicable to all jobs and training apply to all that will do physical work!

6.1 Add any additional safety requirements.

- Typically, ROPS for tailings or any special requirements

7.

7.1 PREQUALIFICATION CRITERIA

CIDB rating : 4 EP

Switchgear training certificates from OEM (SIEMENS, ABB, ACTOM etc.)

7.2 TENDER EVALUATION CRITERIA

- a) 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 information is required.
- b) The following tender evaluation criteria will be used for adjudicating the Contractor submitted tender.
- c) Please provide the required documentation as requested in the "Proof / documents to be submitted" column. Please be specific when submitting documents by ensuring it answer the item specified.
- d) Please use the annexure number as indicated to identify proof submitted.
- e) Failure to submit the relevant documentation as requested in the Evaluation criteria document may lead to a disregard of the submitted tender.

Evaluation Criteria (Technical)				
T /24				
No	Technical Criteria Description	% Contribution	Proof / documents to be submitted	Notes
1	Contractor previous experience in Fire system detection and suppression in substations			
a)	Company - Previous experience in testing and repair of 11 KV skids system in a mining environment Scoring: 1 year =25%; 2 years 50%; 3 years = 75%; 4 years and above =100%	20%	Provide reference list of projects, with values and contact numbers for verification. Proof of award letters for previous work can also be provided.	
b)	Previous experience in Earthing survey and protection grading study. Scoring: Experience in both Earthing study and Protection grading study will give the following rating. 1 year =25%; 2 years 50%; 3 years = 75%; 4 years and above =100% In case of experience in any one(Earthing or Protection grading the rating will become half.	20%	Provide reference list of projects, with values and contact numbers for verification. Proof of award letters for previous work can also be provided.	
2	Team competence/capability			
a)	Team – organogram with roles and responsibility of the team. Comprehensive CV of each member of the team Scoring: Organogram and relevant CV = 100%, No Organogram and relevant CV = 0% If Either organogram or CV provided then it will be 50 %.	20%	Provide organogram of the team with comprehensive CV for each member of the team.	
b)	Test equipment Availability of test equipment Scoring: (All test equipment available = 100%, No test equipment available = 0%)	10%	<i>Provide comprehensive list of test equipment with their calibration certificates.</i>	

3	Planning			
a)	Project plan Scoring: No project plan : 0 Project plan : 100%	20%	Provide the project plan with resources and time allocation for this project.	
	Quality Planning, Quality assurance/control plan, Quality Control Scoring: No Quality Plan = 0; ; Quality Plan submitted = 100 %	10%	Provide quality plan for the execution of this project.	
	Total Technical Score	100.00%		
	Note: In order to qualify for the second evaluation phase (commercial) your company need to score a minimum of 80% on the technical evaluation.			

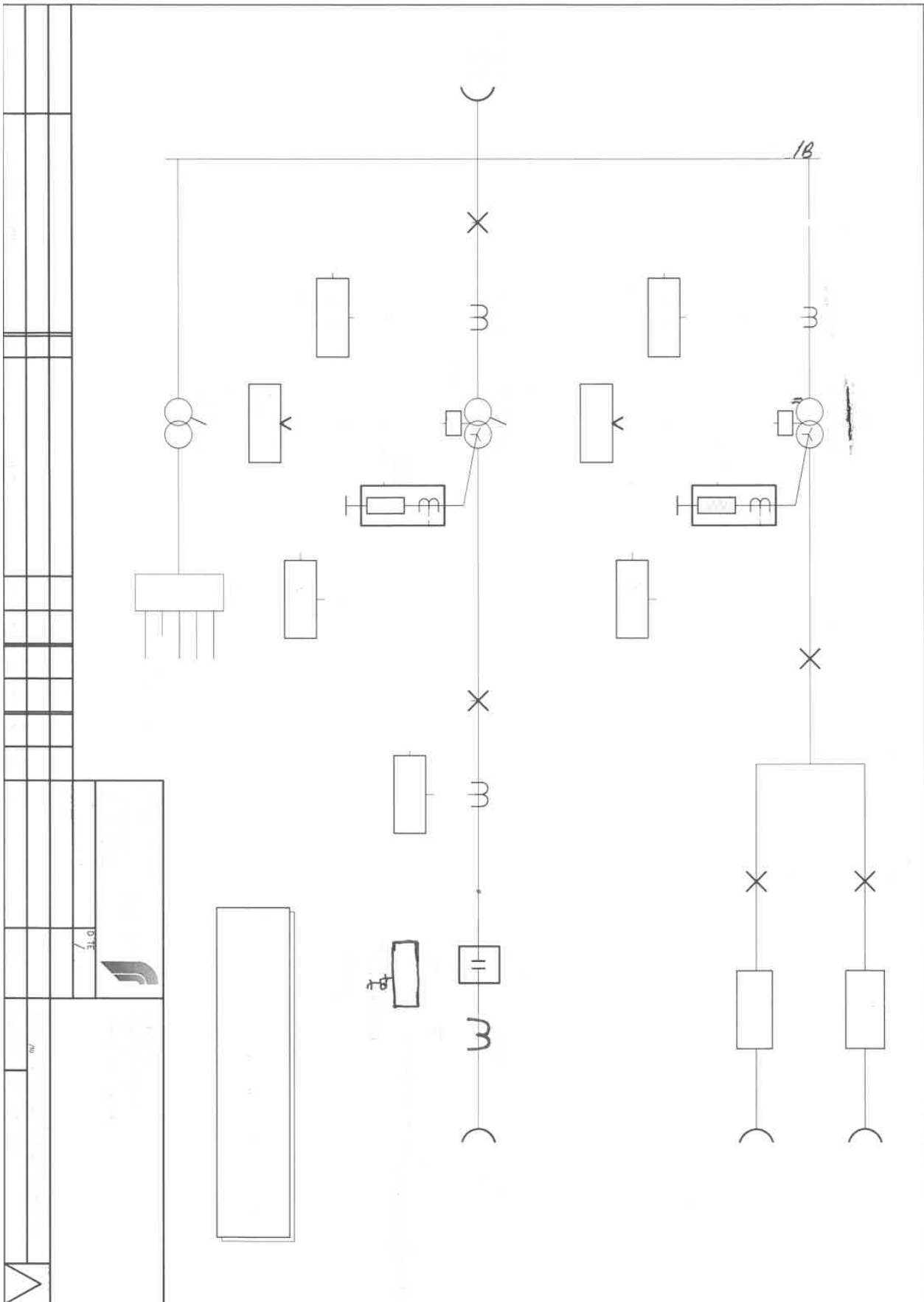
8. **PRICING SCHEDULE**

Tender No.: T/24

Description: Skid testing, Protection grading and Earthing study.

All items of expense to be Included in Pricing Schedule, including but not limited to:

- All labour and supervision, including transport, accommodation, meals, etc.
- All expertise, skill and technical support, Supervision, Administration, Safety, etc.
- Cost for any subservice providers/service providers used..
- All consumables required to Execute the work as per the Scope, Pricing Schedule
- All Supervision, Transport, Site Security, etc
- All Safety Related items required to execute the task (Work Permit, PPE, Training, Medicals, etc)



No	ITEM	Unit	Estimated quantity	Rate	Total
1	Safety file and Foskor work permit	Lot	1		
2	Testing of One skid as per the details given	Number	5		
3	Protection grading study and report submission	Lot	1		
4	Earthing survey and report as per the details provided.	Lot	1		
5	2.9.2		1		
6	2.6.1		1		
7	Any other cost with the details provided	Once off			
8	1x Dry type 525V Neutral Earthing Resistor (NER) for 3MVA 11KV/525V transformer		1		
9	2x 11KV switchgear panels with relay and breaker (Protection scheme) including CTs.		2		
10	1x 3.3kV switchgear panel with relay and breaker (Protection scheme) including CTs.		1		
11	1x 525V master pact panel		1		
12	2X 525 MCC panels with 525V earth leakage circuit breakers and soft starters		2		
13	1x 3.3 MCC panel with vacuum contactor		1		
14	1x 400V/230V/110V distribution panel		1		
15	1x 230AC/32VDC Battery Tripping Unit (BTU) panel (Including batteries).		1		
16	2x Air conditioners		2		
17	4x Lights(outside)		4		
18	1x LED lights 200W		1		
19	16A 3 ping plug		1		
20	Data Pack		1		
21	Original Tests report				
22	Original certificates				
	Total cost				

Compiled by

Approved by

Deepak Pati
Maintenance Superintendent:
Electrical Services

Joseph Mathebula
Senior Manager – Production & Tailings &
BSC Chair



Signature Request

Signature Request ID:	accd003f-ca20-4ee6-a2bf-52ca53d7416f	Timestamp:	2024-05-16 10:27:51 GMT
Signee Name:	Joseph J. Mathebula	Sender Name:	Joseph J. Mathebula
Request Type:	WebSigning	Request Status:	WEBVIEWER SIGNED

Original Document

Document Name:	Amended Specifications and Scope Of Works for 2SKD0014 commissioning 004 1 1.docx	Document Size:	368.0 KB
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Email Evidence

Signee Email:	josephjm@foskor.co.za	Email Subject:	Not available in Silent Mode
Email Sent Timestamp:	Not available in Silent Mode	Email Opened Timestamp:	Not available in Silent Mode

Web Evidence

Signee IP Address:	41.21.226.206	Request Timestamp:	2024-05-16 10:27:00 GMT
Signee GPS (if shared):	ZA: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/124.0.0.0 Safari/537.36 Edg/124.0.0.0	Terms Accepted Timestamp:	2024-05-16 10:27:29 GMT

Annotations and Modifications

Signature Count:	1	Form Fields Filled Count:	0
Text Annotation Count:	0	Initial All Pages Count:	0
Single Initial Count:	0		

Signing Evidence

Signee Mobile:	+27768618785	Sign Type:	WebSigning
Security Challenge:	NONE	Part of Workflow:	NONE

Chain Of Custody Generation

Attached Document Name:	20240516T102750.888998Z Amended Specifications and Scope Of Works for 2SKD0014 commissioning 004 1 1.docx	Attached Timestamp:	2024-05-16 10:27:51 GMT
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