

FOSKOR (PTY) LIMITED

Foskor (Pty) Limited
27 Selati Road / P.O Box 1
Phalaborwa

SCOPE OF REQUIREMENTS FOR ELECTRICAL SHUTDOWN WORK 2026

DOCUMENT- AND PROJECT APPROVAL		
	FOSKOR OFFICIAL	SIGNATURE
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SCOPE OF WORK

Description: Foskor Mine - Electrical Shutdown Work 2026

1 INVITATION TO TENDER

This document defines the scope and requirements for the electrical shutdown works, including the servicing, testing, and repair of circuit breakers, protection relays, links, busbars, current transformers, and power transformers at Foskor Mine, Phalaborwa, where required.

2 PRE-QUALIFICATION

- 1) The bidder must comply with the bid pre-qualification requirements in order for the bid to be accepted for evaluation.
- 2) If the Bidder failed to comply with any of the administrative pre-qualification requirements, or if Foskor is unable to verify whether the pre-qualification requirements are met, then Foskor reserves the right to-
 - a) Reject the bid and not evaluate it, or
 - b) Accept the bid for evaluation, on condition that the Bidder must submit within 7 (seven) days any supplementary information to achieve full compliance, provided that the supplementary information is administrative and not substantive in nature.

	Required document
1. Attendance of briefing session	A Compulsory Virtual Briefing session will be held. Attendance register shall be facilitated by Procurement.
2. Trained for 132/22/11 KV switchgears	Provide OEM certificates for the switchgear (ACTOM, / ABB/SIEMENS/SCHNEIDER) or the approved training certificates for the different switchgears.
3. Vendor must Agree to do the test of competency for Foskor at their own cost.	<p>If Foskor needs to check the competencies of any vendor, then they must be willing to agree to appear for the test as per the requirement of Foskor by bringing the proper test equipments and competent team to test the following at TSS electrical workshop:</p> <ol style="list-style-type: none"> (1) Power transformer (2) Circuit breakers (3) Relays (4) BTU (5) Current transformers (6) 5 MVA generator <p>Vendor to provide the letter of consent for the above.</p>
4. Authorised repairer for Generators	Provide OEM (WEG/ ELEGEN/New Way/The Generator King/Danmik Power Generation) certificates for the Generators (more than 2.5 MVA) or the approved supplier

	and installer certificates from the Generator manufacturer (OEM).
5. Authorised repairer for Power transformer	Provide OEM (ACTOM/TOMCO/DIMAKO Transformers/ABB) certificates for the Transformers (more than 1 MVA) or the authorised supplier and installer certificates from the Transformer manufacturer(OEM).

It is the Bidder's responsibility to ensure that he/she has responded to the evaluation criteria. Failure to meet the evaluation criteria will result in the Bidder being not evaluated further. Bidders must ensure that they have included all supporting documentation required to support their response to the bid.

2.1 ABBREVIATIONS

Hrs – Hours
 HV – High Voltage
 LV – Low Voltage
 PCB - Polychlorinated biphenyl
 SAT - Site Acceptance Testing
 NER – Neutral Earthing Resistor

2.2 SCOPE BACKGROUND

The annual service and tests of substations switchgear form part of electrical maintenance strategy to ensure continuation and reliability of power supply as well as safety of personnel at Foskor. The scope of work is divided into four parts, namely:

- *Scope of Work – Outdoor Substation Maintenance*
- *Scope of Work – Indoor Substation Maintenance*
- *Scope of work – Transformer work.*
- *Scope of work – Miscellaneous jobs.*

2.3 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 SCOPE OF WORK

The following scope is applicable to this shutdown project.

3.1 SCOPE OF WORK - OUTDOOR SUBSTATION MAINTENANCE

132kV Main intake substations (Wegsteek, Extension 8 & TTPS)

- 1) Tighten and repair hot connection on 132kV, 22kV, and 11kV conductor and cable terminations,
- 2) Check, service and test the isolator link mechanisms,
- 3) Service and perform speed and Ductor's test on all breakers,
- 4) Do the primary and secondary current injection tests on the relays,
- 5) Test power transformers.
- 6) Test the Current transformers
- 7) Check the earthing as per the breakers and relays matrix attached.

Note 1: All the tasks need to be completed in 8 Hrs available time excludes the switching time.

Note 2: No live work will be done except the partial discharge test.

- 8) Supply three phase power supply as there will be no electricity during this shutdown.
- 9) Provide a list of equipment to perform breaker tests, current transformer, power transformer tests and relay tests including three phase testing equipment.
- 10) Provide calibration certificate for each test equipment to be used at Foskor mine.

Note 1: Four days are allocated for the full execution of the scope. The bidder shall provide a detailed project schedule and resources for the full execution of this task for 8 hrs daily. This includes switching ON.

Note 2: Indicate the number of teams that shall be made available to finish the job in the list in 8 Hrs daily.

Note 3: Indicate along with the number of teams,

- *a team composition,*
- *testing equipment available and*
- *critical spares available while submitting the tender.*

- 11) Conduct all repairs/maintenance/ testing/servicing work as highlighted in the Outdoor Substation Maintenance Matrix. The matrix indicates the work required per apparatus on each section.

3.1.1 Power Transformers

For 132kV/11kV and 132kV/22kV/6.6kV Power Transformers work indicated, the following detailed scope shall be covered, and process flow shall be adhered to.

- 1) Switch off electrical supply.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Conduct the following tests for each power transformer.
 - Test transformer turns ratios for all the tap positions.
 - Perform DC resistance tests for all the tap positions.
 - Record magnetising currents of the transformer.
 - Test Insulation resistance between HV-MV, HV-Earth, MV-Earth (and HV- core, MV-core, and core-earth where applicable).
 - Test and confirm the transformer impedance for tap1, nominal tap and the highest tap positions.
- 5) Assess the transformer physical condition and advise Foskor.
- 6) Remove lock out.

3.1.2 Circuit_Breaker

The following detailed scope shall be covered, and process flow shall be adhered to.

- 1) Switch off electrical supply or isolate from source of mechanical power.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Service Breaker. (Mention in detail about the various aspects covered in the quote.)
- 5) Inspect Breaker for traces of water ingress.
- 6) Conduct speed test and record results. Only speed test of trip for oil circuit breakers.
- 7) Check and record the breaker contacts for any deterioration.
- 8) Conduct Ductor test and record results.
- 9) Check and service the rack in mechanism.
- 10) Check record and set the contact gap.
- 11) In case of SF6 breaker, check and record the gas pressure. Do the refill if it is low.
- 12) Verify and record the breaker operational interlocks.
- 13) For transformer breakers, confirm and record the back trips with Buchholz and temperature interlocks.
- 14) Spring charging motor health checking need to be done.
- 15) Remove lock out.

3.1.3 Over head Conductors

- 1) Check all terminations and retorque the loose connections in the yard.
- 2) Replace all identified damaged conductors.
- 3) Inspect and repair hot connection as per the list.

3.1.4 Isolators

- 1) Inspect and clean all the isolator contact tips.
- 2) Service, test, and operate the isolator mechanism.
- 3) Replace all damaged isolators as per scanning results (Foskor and contractor results).

3.1.5 Relay

For Relays work indicated, the following detailed scope shall be covered, and process flow shall be adhered to.

- 1) Switch off electrical supply.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Conduct secondary injection test and and record results for each relay.
- 5) Test differential and REF stabilities from primary plant.
- 6) Each transformer NEC need to be tested.
- 7) Transformer protection needs to be checked.
- 8) If any relay is found to have any alarm, fault, or message then it needed to be checked and rectified.
- 9) Remove lock out.

3.1.6 CT testing

For CT work indicated, the following detailed scope shall be covered, and process flow shall be adhered to

- 1) Switch off electrical supply.

- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Conduct the following tests for each CT.
 - Check and record the CT ratio values. Put a label with checked CT ratios along with date verified on.
 - Polarity test.
 - Magnetising curve testing (for X class CTs, the knee point measurement shall be done)
 - Conduct Primary Injection if required by the Engineer
 - Sensitivity and correctness of the CT.
 - CT Insulation and resistance measurement.
 - CT burden verification
- 5) Assess the CT's physical condition and advise Foskop.
- 6) Remove lock out.

3.1.7 Substation general

- 1) Check the cable terminations.
- 2) Measure and record the basic insulation level.
- 3) Measure and record the earth resistance between the Board and earth.
- 4) Measure and record the earth resistance with each breaker panel.
- 5) BTU maintenance.
- 6) Partial discharge scanning for the complete yard before and after the maintenance. (-3 w; + 2 w)
- 7) Tan Delta of each switchgear between bus bars and insulators.
- 8) Tan delta for each power transformer 40 MVA between windings and body.
- 9) Thermal (IR) scanning for the complete yard before and after the maintenance. (-3 w; + 2 w)

3.1.8 Critical spares

The contractor will supply, deliver the critical spares required per type of CB (indoor or outdoor) oil, vacuum or SF6 as may be required during the shutdown period. Typical items will be:

- "O" rings,
- Gaskets.
- Closing coils.
- Tripping coils.
- Spring wound motors.
- Bearings for outdoor mechanisms.
- SF6 gas; fittings, gauges; seals.

The items to be replaced will be defined and approved by the Foskop engineer prior to replacement.

The critical spares list will be quoted for in the tender.

Allowance must be made to repair 10 items identified from the IR and or partial discharge tests.

3.2 SCOPE OF WORK – INDOOR SUBSTATION MAINTENANCE

This section of the scope covers work as it relates to indoor substations.

- 1) For the relay test, three phase testing equipment must be available with each team.
- 2) Provide a list of equipment to perform breakers speed tests and relay test three phase testing equipment.
- 3) Provide calibration certificate for each test equipment to be used at Foskop mine

Note 1: Four days are allocated for the full execution of this the scope. The bidder shall provide a detailed project schedules for full execution of the tasks for 4 days (8 hrs per day)

Note 2: Due to time constraints of this project, it is highly recommended for the site test team to have their own testing equipment to perform breakers speed tests and relay test three phase testing equipment. Time delays due to unavailability of the highlighted will not be accepted.

- 4) Conduct all repair/maintenance/ testing/servicing work as highlighted in the Indoor Substation Maintenance Matrix. The matrix depicts the work required per apparatus on each section.

3.2.1 Circuit Breaker(s)

For Circuit Breaker work indicated, the following detailed scope shall be covered, and process flow shall be adhered to

- 1) Switch off electrical supply or isolate from source of mechanical power.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Service Breaker. (Mention in detail about the various aspects covered in the quote.)
- 5) Conduct speed test and record results. Only speed test of trip for oil circuit breakers.
- 6) Check and record the breaker contacts for any deterioration.
- 7) Conduct Ductor test and record results.
- 8) Check and service the rack in mechanism.
- 9) Check record and set the contact gap.
- 10) In case of oil breaker, replace the oil where required (oil is free issue by Foskor) and replace gaskets.
- 11) In case of SF6 breaker check and record the gas pressure. Do the refill if it is low.
- 12) Verify and record the breaker operational interlocks.
- 13) For transformer breakers confirm and record the breaker trip with Buchholz and temperature interlocks.
- 14) Spring charging motor health checking need to be done.
- 15) Remove lock out.

3.2.2 Busbar

For Busbar work indicated, the following detailed scope shall be covered, and process flow shall be adhered to.

- 1) Switch off electrical supply.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Clean, inspect and record any defect in busbar holding insulators.
- 5) Retorque all the bus bars.
- 6) Measure and record insulation values.
- 7) Partial discharge between busbars and insulators needs to be tested and recorded.
- 8) Remove lock out.

3.2.3 Relay

For Relays work indicated, the following detailed scope shall be covered, and process flow shall be adhered to.

- 1) Switch off electrical supply.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Conduct secondary injection test and and record results for each relay.
- 5) Each transformer NER need to be tested.

- 6) Transformer protection need to be checked.
- 7) If any relay is found to have any alarm, fault, or message, it must be checked and rectified.
- 8) Remove lock out.

3.2.4 CT testing

For CT work indicated, the following detailed scope shall be covered, and process flow shall be adhered to

- 1) Switch off electrical supply.
- 2) Lock out supply.
- 3) Test for zero potential.
- 4) Conduct the following tests for each CT.
 - Check and record the CT ratio values. Put a label with checked CT ratios along with date verified on.
 - Polarity test.
 - Magnetising curve testing (for X class CTs, the knee point measurement shall be done)
 - Sensitivity and correctness of the CT.
 - CT Insulation and resistance measurement.
 - CT burden verification
- 5) Assess the CT's physical condition and advise FOSKOR.
- 6) Remove lock out.

3.2.5 Substation general

For Substation work indicated, the following detailed scope shall be covered, and process flow shall be adhered to

- 1) Check the cable terminations.
- 2) Measure and record the basic insulation level.
- 3) Measure and record the earth resistance between the Board and earth.
- 4) Measure and record the earth resistance with each breaker panel.
- 5) Conduct BTU maintenance.
- 6) Partial discharge scanning for the complete substation before and after the maintenance (three weeks before and two weeks after)
- 7) Tan Delta of each switchgear between bus bars and insulators.
- 8) Thermal (IR) scanning for the complete yard **before and after** the maintenance. (three weeks before and one weeks after)

3.2.6 Critical spares

The contractor will supply, deliver the critical spares required per type of CB (indoor or outdoor) oil, vacuum or SF6 as may be required during the shutdown period. Typical items will be:

- "O" rings,
- Gaskets.
- Closing coils.
- Tripping coils.
- Spring wound motors.
- Bearings for outdoor mechanisms.
- SF6 gas; fittings, gauges; seals.

The items to be replaced will be defined and approved by the FOSKOR engineer prior to replacement.

The critical spares list will be quoted for in the tender.

Allowance must be made to repair 10 items identified from the IR and or partial discharge tests.

3.3 SCOPE OF WORK – TRANSFORMER WORK.

Do the transformer maintenance as per Transformer Matrix. The transformer matrix indicates which transformers to be repaired, which to be purified, and which to change oil is attached.

3.3.1 Transformer oil purification scope of work

For transformer indicated to require oil purification, the following detailed process flow shall be adhered to.

- 1) Lock out supply to Transformer.
- 2) Test for zero potential.
- 3) Clean transformer with degreaser
- 4) Wash off and dry transformer.
- 5) Check all bolts and connections for tightness.
- 6) Dry out all terminal boxes and cable terminations.
- 7) Replace silica gel (blue type)
- 8) Repair all transformer leaks.
- 9) Oil purification (minimum four passes)
- 10) Take oil sample test after purification (kV, acidity, moisture, PCB, furan, and DGA analysis)
- 11) Clean oil and winding temperature gauges.
- 12) Clean transformer bay (remove all oil spillages with degreaser, remove contaminated soil, remove vegetation as may be required and do general housekeeping)**
- 13) Bleed off buchholz relay.
- 14) Remove lock out.

3.3.2 Transformer oil change scope of work

For transformers indicated to require oil change, the following detailed process shall be adhered to.

- 1) Lock out supply to Transformer.
- 2) Test for zero potential.
- 3) Clean transformer with degreaser
- 4) Wash off and dry transformer.
- 5) Check all bolts and connections for tightness.
- 6) Dry out all terminal boxes and cable terminations.
- 7) Replace silica gel (blue type)
- 8) Repair all transformer leaks.
- 9) Drain old oil and hot flush to remove all impurities and sludge.
- 10) Replace with new virgin/regen oil.
- 11) Take oil sample test after oil change (kV, acidity, moisture, PCB, furan, and DGA analysis)
- 12) Check all remaining equipment.
- 13) Clean transformer bay.
- 14) Bleed off Buchholz relay.
- 15) Remove lock out.

Note 1: the purification machines must have trailer mounted generators for power supply as there will be no power during the shutdown to run the purification machines.

Note 2: Two days is allocated for the full execution of this part of the scope. Planning to execute the job shall be in accordance with “**Annexure A – Time budget.**”

Note 3: Indicate the number of teams that will be made available to finish the job as per Annexure A – Time budget.

Note 4: indicate the number of trailer mounted purification machines and number of teams that will be made available to complete the transformers as per Annexure A – Time budget.

3.3.3 Critical spares

The contractor will supply, deliver the critical spares required per type of Transformer as may be required during the shutdown period. Typical items will be:

- Gasket kits.
- Oil level Gauges.
- Temperature indicators.

The items to be replaced will be defined and approved by the Foskor engineer prior to replacement.

The critical spares list will be quoted for in the tender.

3.4 MISCELLANEOUS JOBS

3.4.1 Commissioning 5 X Neutral Earthing Resistors (NER's)

- 1) Conduct fault-finding on the NER's, including testing and replacement (if required) of 31-ohm resistors and verification of electrical continuity of conductors between earth connections and resistors.
- 2) *Supply and Install 300 m of 2.5 mm² X 7 core cable, including termination and commissioning of NER.*
- 3) Provide reliable power supply for NER relays from nearby substations where local supply is not available with 2.5 mm² X 3 core cable of 300 meters.
- 4) Supply, install and commission 16 numbers of 31 Ohm & 5 Amps resistors for the faulty NERS.
- 5) Complete all NER connections to between NERs, associated transformers and earth, ensuring compliance with site earthing standards.
- 6) Commission transformer protection to ensure correct tripping on NER operation.

Rating of the NERS:

Supplier: STEELCOR

Existing CT: 100 / 5

Resistor: 31 Ohms and 5 Amps.



Figure 1. NER

3.4.2 Main Intake – Panel 17

- 1) Repair and reinstate remote Closing and tripping functionality.
- 2) Perform functional testing to confirm reliable remote operation.

3.4.3 TTPS 22KV Substation - Panel 4


- 3) Commission and repair protection on the panel to ensure correct operation a
- 4) Install and commission the SR750 relay (supplied by Foskor), including mounting, wiring and integration.
- 5) Configure, program and test all protection trips, alarms, and interlocks in accordance with approved protection settings and site standards.

3.4.4 Hot Connections

- 1) Perform Infrared (IR) thermography and Partial Discharge (PD) testing on 132 KV yards and substations prior to commencement of shutdown.
- 2) Review and incorporate Foskor-provided lists of hot connections from condition monitoring reports.
- 3) Compile the contractor's own inspection and defect list and review and align with Foskor report.
- 4) Repair all identified hot connections, including cleaning, tightening, replacement of damaged components.
- 5) Test all repaired hot connections under load to confirm proper operation and no remaining faults.
- 6) Identify and repair all partial discharge abnormalities
- 7) Test after repair to ensure proper operation.

3.4.5 Main Intake - 132 KV Transformer NEC

- 1) Supply and install the required transformer bushing, including removal of the existing bushing.
- 2) Confirm and verify bushing rating, insulation class and compatibility in accordance with below transformer manufacturer specifications.

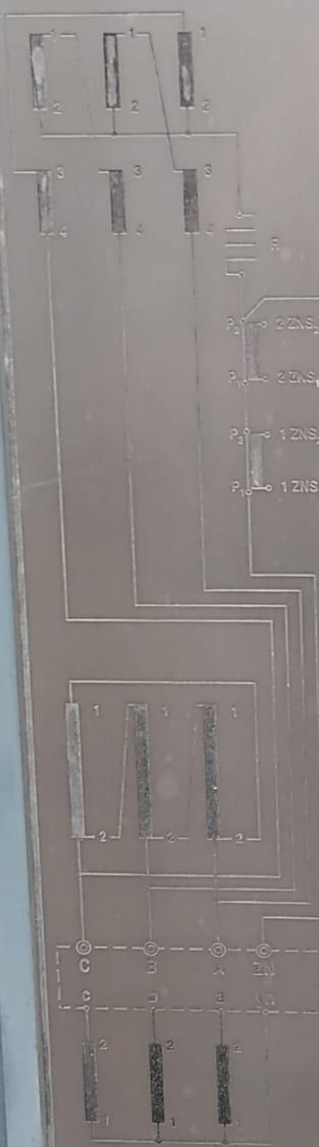
DPM  **Destra Power Matla**

P.O.BOX 38354
BOOYSENS
2016

COMBINED N.E.C. / N.E.R. / AUX. TRANSFORMER To DISSCAAD1 REV. 7

FILL UNDER AN INTERNAL PRESSURE BETWEEN 0 & 6.7 kPa ABS ALTITUDE 1800 m

RATED VOLTS 11 000 Ph 3 Hz 50 TYPE OF COOL ONAN



N.E.C. TO IEC 289 : 1988			
COMMON H.V. TERMINALS A - B - C			
	NEUTRAL	PHASE	TIME
RATED	360 A	120 A	10 Sec.
CURRENT	10 A	3,333 A	CONT.
ZERO SEQ. REACTANCE	23.79 Ω /Ph		
INSULATION LEVEL	28	7	95 kV

PROTECTIVE C.T.'s TO IEC-60044-1					
C.T.'s REF.				1 ZN	
Sec.	AMPS	TURNS	R _{sec} Ω	CLASS X	
TERM.	RATIO	RATIO	@75°C	I mag	VOLTS
S ₁ -S ₂	2000/5	5/2000	1-2	0.050	250
DESTA SERIAL N°.					

PROTECTIVE C.T.'s TO IEC-60044-1					
C.T.'s REF.				2 ZN	
Sec.	AMPS	TURNS	R _{sec} Ω	10-5P-20	
TERM.	RATIO	RATIO	@75°C	I mag	VOLTS
S ₁ -S ₂	300/1	1/300	2.63		249
DESTA SERIAL N°.					

CURRENT - LIMITING RESISTOR TO ESKOM STANDARD DISSCAAD1	
RATED VOLTAGE	V 11000 / $\sqrt{3}$
RESISTANCE AT 100°C	Ω 13.377
RATED CURRENT FOR 10 Sec.	A 360
CONTINUOUS CURRENT	A 10
INSULATION LEVEL	kV 28/95
DESTA	TYPE 13-0971

AUXILIARY TRANSF. TO SANS 780			
RATED (MVA) 100			
H.V. - TERMINALS		- L.V.	
A-B-C		a-b-c	
VOLTS	AMPS	VOLTS	AMPS
11 000	525	400	144.5
INS. LEVEL	28 / 7	95 kV	2.5 / 25 kV
VECTOR GROUP SYMBOL		Dyn 11	
IMPEDANCE VOLTAGE %		4.7	

UNTANKING kg 630 OIL kg 630 SMOGS NO 1880 YEAR MAN. 2008

CUSTOMER FOSKOR PTY LTD. OHD. N° 4ZX

DESTA SERIAL No. Y45501

Figure 2. NEC Specifications

3.4.6 5 MVA Generator Set (3 X 1.25 MVA)

- 1) Supply and test 24 V DC relays (50 units)
- 2) Replace any faulty or degraded relays and power supplies identified.
- 3) Programing of the generator relay to have the auto filling of diesel for inside tank.
- 4) Servicing of generator with check of filters, engine and other components for a healthy operation.
- 5) Supply and replace air and oil filters
- 6) Inspect and tighten all electrical wiring, termination, and control panel
- 7) Generator operation to be checked
- 8) Test the automatic diesel filling system, including level sensing, automatic filling, and automatic shut-off at full tank, and repair any defects identified



Figure 3. Generator Specifications

3.4.7 Wegsteek capacitors

RLC 04 and 7SR 11 relay settings to be calculated and programmed for smooth operation of Capacitors.

This task involves the protection settings implementation and testing for three capacitor banks (East, Central and West) at Wegsteek substation. Each of the three capacitor banks is controlled by a primary breaker protected by a 7SR1103 relay. Each bank comprises three sets of Joslyn breakers, each protected by RLC 04 relay.

The contractor is required to complete the following tasks:

- 1) **Setting Calculations:** Perform comprehensive protection coordination studies to determine overcurrent and earthfault settings & the unit protection settings for capacitor reliable operation for all twelve relays.
- 2) **Implamentation:** Upload and configure the calculated settings onto the 7SR1103 and RLC 04 relays.
- 3) **Tests:** Conduct secondary injection testing to ensure the relays operate according to the calculated parameters and that all the trip logics are functioning correctly.

The contractor is encouraged to request all the necessary technical data and system parameters prior to the scheduled shutdown period to facilitate accurate calculations and smooth implementation. Upon completion, the contractor must provide a test report for each of the relays, confirming that the settings have been successfully applied and the relays are fully operational.

3.4.8 Instantaneous settings of the transformers

Foskor is ensuring a protection system optimization and fast fault clearance across all transformer bays within the operational plants, with the implementation of instantaneous overcurrent settings.

Vendor will provide the specific calculated settings for each of the transformer bays as per the list submitted by Foskor, and the contractor's responsibility includes:

- 1) **Settings calculation & implementation:** Accurate configuration of the provided instantaneous overcurrent settings across all the designated protection relays.
- 2) **Testing and verification:** Secondary injection testing to verify that the relays respond correctly to the new parameters and to ensure that the tripping logic functions as intended for rapid isolation of faults.

The contractor is encouraged to request all the necessary technical data and system parameters prior to the scheduled shutdown period to facilitate accurate calculations and smooth implementation. Upon completion, the contractor must provide a test report for each of the relays, confirming that the settings have been successfully applied and the relays are fully operational.

3.4.9 IP rating test - Wegsteek 11KV Circuit breaker dogboxes

- 1) Conduct IP rating test on 15x 11KV Circuit breaker dogboxes located at Wegsteek.
- 2) Repair the dogbox(s) that fails the IP rating tests as required for outdoor 11KV circuit breaker dogbox.

Note 1: Service provider must submit the procedure and standard used to conduct the IP rating test.

Note 2: Service provider must specify the standard IP rating test frequency/interval on Circuit breaker dogbox.

3.4.10 Faulty Conductor and clamps replacement at Wegsteek at the following places (estimated to be total 200 meters of conductor):

- 1) Some of the insulators at 11 KV side of Wegsteek yard are making the sound. They needed to be repaired/ replaced.

Note 1: Foskor to provide conductor, insulators and clamps.

Note 2: Service provider to make provision for aluminium paste and any other required item to do the replacement job.

3.4.11 VRD Breaker

- 1) Supply and install DC closing coils to replace the existing AC closing coils so as the feed from the existing BTU.
- 2) Connect and supply the DC closing coils from the existing BTU (Battery Tripping Unit), including all required wiring, terminations, and functional testing.

Note 1: BTU Voltage= 110 V DC output

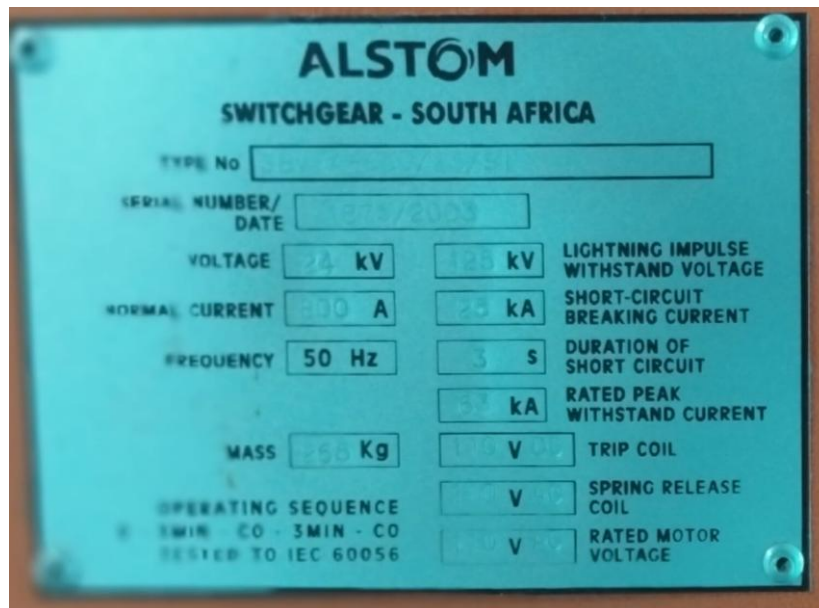


Figure 4. Breaker Specifications

3.4.12 RMU Service

- 1) Perform RMU servicing on the following, specifications provided below:
 - Quarry West 5
 - Quarry West 5.1
 - Mine Offices
- 2) Lock out supply to RMU.
- 3) Test for zero potential.
- 4) Apply Lock-out/tag-out
- 5) Lubricate moving parts
- 6) Verify manual and motorized operation modes
- 7) Testing of protection relays (overcurrent, earth fault) on VIP300 relay.
- 8) Verify tripping and closing coil operation

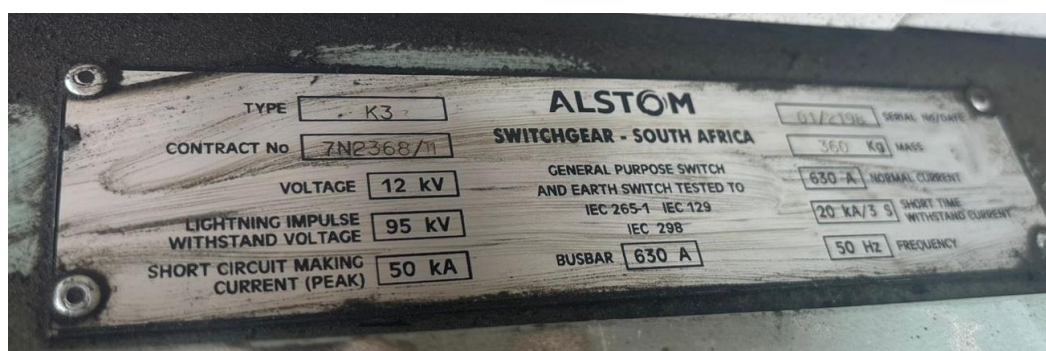


Figure 5. RMU Specifications

3.4.13 Spring Charging failure

- 1) Investigate and repair spring charging failures on the following feeders:
 - Wegsteek PSZ Feeder 1
 - MainSub – Feeder 1

- 2) Repair or replace defective components to restore reliable spring charging and breaker closing functionality.



Figure 6. Feeder specifications

3.4.14 Replace 22 KV link next to 132 Kv yard TTPS

- 1) Vendor to remove the faulty link and install the new link provided by Foskor at the designated place near Weir 8.

3.4.15 Transformer protection system operational

Test all the applicable transformers safety devices to ensure alarming and tripping for the transformer bays provided.

- 1) Test Buchholtz alarm and trip from the Buchholz relay to the associated breaker.
- 2) Test Oil temperature alarm and trip from the Oil temperature gauge to trip the associated breaker.
- 3) Test Winding temperature alarm and trip from the Winding temperature gauge to trip the associated breaker.
- 4) Test Pressure Relieve Valve trip from the PRV to trip the associated breaker.
- 5) Test the NER trip to trip the associated breaker.
- 6) Fault find, Connect, repair and back trip tests that are not functional.
- 7) All the transformers from the list in which the devices are not connected, not functioning/not available should be noted in a report format. A comprehensive report should be provided indicating all the discrepancies.

Note: All the tests should be conducted with the instrument, tests performed from the termination box will not be accepted.

3.5 SUPERVISION

Each substation testing and maintenance team must have 1 Supervisor whose responsibilities include the following:

1. Supervise the work to be performed.
2. Ensure the Safety of Personnel and Equipment.
3. Before starting the testing and maintenance job the bus bar Megger value needs to be checked and recorded.
4. Once the testing and maintenance work is completed, the bus bar Megger value must be checked and recorded.
5. Checking the tightness of CT terminations.
6. Checking the quality of power cable termination.
7. Checking and ensuring quality of each of job done during this shutdown.
8. Substation handover and declaration on completion of the work and prior to re energizing.

4 DELIVERY OF MATERIALS AND EQUIPMENT

- 1) Except or otherwise expressly provided herein, the contractor shall supply.
 - All labor,
 - Material,
 - Test equipment,
 - Services,
 - Transport,
 - Testing devices,
 - warehousing,
 - equipment,
 - generators,
 - spotlights,
 - tools,
 - installed and consumable materials and
 - every item of expense necessary for the site testing of the protection relay circuits (SAT testing),
 - service HV isolator switches and the
 - ductor test on the circuit breakers in the 11kV, 22kV and 132 kV substations at the Foskor site in Phalaborwa, Limpopo Province,
- 2) The test work will be performed as per the attached relay matrices, circuit breakers matrices, transformer matrices, the proposed shutdown plan, and the single line drawings of the electrical reticulation.
- 3) Once the tender is finalized the successful tenderer (contractor) is appointed, the successful tenderer shall attend the weekly shutdown planning with the FOSKOR engineer.
- 4) The contractor will be responsible for timeous completion of work permit before the shutdown starts,
- 5) the contractor will be responsible for own employees.
 - medicals,
 - induction,
 - PPE (Personal Protective Equipment) and
 - required safety training.

- 6) All the manpower and the material to be organized and brought to site ahead of shutdown.
- 7) The contractor is responsible for maintaining the critical spares required for the various type of circuit breakers (vacuum, oil, SF6), isolators, termination kits, gaskets, cleaning solvents, HT tapes.

5 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
				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 Foskor 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 Foskor ID Card	C	6.2 Rigger	FF
4.3 Sampling and laboratory testing	N/A			6.3 Mobile cranes	FF

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C =CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC=FOSKOR, AT COST TO CONTRACTOR					
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
13.1 Site office/s with suitable facilities for daily “Green Area” meetings, and lunch area	C	14.1 Transport all waste to Foskop designated waste sites	C		
13.2 Site establishment space	FF				
16 Scaffolding		17 Labour		18. Compressed air	
16.1 Scaffolding Supply & Erect	FF	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	FF			18.3 Air for power tools - If available	N/A
16.4 Cherry Picker’s Driver– Trained and authorized driver	FF				

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C =CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC=FOSKOR, AT COST TO CONTRACTOR					
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 Foskop can train its workforce and operate the plant / equipment safely	C
22.2 Hot Work Equip as per Foskop COP - Welding Machines, Gas Cutting, Grinding, Gauging, etc	C			All manuals and related documents to be supplied to project Eng and Foskop Drawing office for safe keeping	C
22.3 Tools as required to execute task	C				
				25 Mechanical	
				25.1 Conveyor Belt	N/A

5.1 ADDITIONAL BOUNDARIES

None

6 QUALITY

During the SAT of the relays and circuit breakers of the switchboards, a Foskop representative will witness all the SAT testing of the equipment as per the relay and circuit breaker matrix, the hold points will include but not limited to:

- Busbar Ohm reading before commencement of work and busbar Ohm readings after completion of work.
- Declaration by the contractor 2.9.2 supervisor that the substation is safe to switch.
- Relays and CT's test results
- OCB oil dielectric test

- Witness of acceptance tests by Foskop representative
- Transformer oil samples report
- Transformer leaks retorque after three months

NB: The Contractor must give a workmanship gurantee of 1 year, and therefore any defects that occur within one year from the the date of repair will be done by the Contractor free of charge. It is important that the Contractor applies for a year long permit so that any rework or premature failure can be attended to post shutdown.

7 Manuals and Documentation

The following must be supplied:

- 1) At tender stage:
 - i. Detailed project plan that reflects allocation of teams per task
 - ii. Organogram, how the team's composition is structured with names of people.
 - iii. CVs of all team members, reflecting number of years experience on electrical maintenance
 - iv. Academic quaifications for team members that will be conducting servicing, testing and repairs at Foskop.
- 2) On award of shutdown order
 - i. Detailed proposed project schedule as per shutdown plan to be submitted within three days of receipt of official order.
- 3) On completion of shutdown:
 - i. Preliminary shutdowns report a day after completion of shutdown work that highlights all defects found and corrective actions taken and outstanding.
 - ii. Shutdown reports comprising four copies of binding arc files for each substation and four softcopies in form of CD's/Data Traveller.

7.1 LANGUAGE OF DOCUMENTS AND MANUALS

Note! - All Documents and Manuals must be in English

7.2 TRANSMITTAL OF DOCUMENTS AND MANUALS

Documents and Manuals to be submitted in the flowing formats:

Type of Document	Hard Copy	Electronic Format
Manuals	X	X
Drawings	X	X
Reports	X	X
Data Books	X	X

Hard Copy: Book or binding arch file format and 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

7.3 DOCUMENTS / DRAWINGS ISSUED BY FOSKOR

Drawing or Document No	Title	Revision
	BOQ 1 – Shutdown 2026	0
	BOQ 2 – Shutdown 2026	0
	BOQ 3 – Shutdown 2026	0
	BOQ 4 – Shutdown 2026	0
	BOQ 5 – Shutdown 2026	0
	BOQ 6 – Total Project Cost	0
	Weegsteek Substation Single Line Drawing	0
	TTPS Substation Single Line Drawing	0
	Extention 8 Substation Single Line Drawing	0
	MS2 Single Line Drawing	0
	MS3 Single Line Drawing	0
Note	Please read your Scope of Work	

8 ON-SITE SUPERVISION REQUIREMENT

- 1) A Foskor work permit before commencement of site work.
- 2) A full time 2.9.2 appointed supervisor who has passed the Fokor 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 shutdown.
- 3) A 2.6.1 appointed site manager who has passed the Fokor 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 shutdown.
- 5) A full time Safety Officer will be required for the entire duration of the shutdown.
- 6) All the drivers for Contractor TMM wil be required to undergo VTS dover test to be authorised to drive on site, allow sufficient time for drivers to conduct the authorisations training at least a week prior to shutdown.

9 TENDER DELIVERABLES

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

- All deliverable as highlighted in the Technical and Commercial evaluation.
- Complete Foskop pricing schedule (BOQ)
- Preliminary Project Schedule
- Detailed CVs of all team members
- Copy of Certificate of Passing Foskop 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

10 SPECIFICATIONS, PROCEDURES, REQUIREMENTS AND RESPONSIBILITIES

The successful Bidder is expected to:

- 1) Comply with all the requirements of Foskop 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)

11 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 Foskop 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 Shutdown type tasks 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 specify 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

11.1 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

12 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 Foscok 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 Foscok supervisor)
- 6) Before entering and operating/working on the Foscok site the appointed Bidder shall ensure that his portable electrical equipment have been tested and declared safe to use by the Foscok 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 Foscok 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 Foscok 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)

13 SAFETY

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

- 1) The Bidder and subcontractors need to comply with the Mine Health and Safety act at all times. All Foscok COP's Policies and procedures need to be adhered to.
- 2) A Bidder 2.9.2 to be permanently on site.
- 3) Medical, Induction, Foscok 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 Foscok Work permit and at least 3 weeks should be allocated for this. The Bidder 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.
- 5) All vehicles and cranes and other TMM's to be inspected before entering Foscok Premises.
- 6) All person competencies to be verified before being allowed to work on Foscok premises for a specific task.

- 7) The Bidder must compile a Safety File as per FOSKOR 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 FOSKOR 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 Foskor 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 Foskor COPs from Bridget Cole at Projects.

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

13.1 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 Foskor 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 Foskor Safety Department)
- ii. A copy of the PERMIT TO WORK.
- iii. A copy of the MSHA Regulation 2.6.1 and -2.9.2 and SHE Rep appointment letters.
- iv. A copy of Foskor 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 Foskor 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 Foskor COP 59, Trackless Mobile Machinery for details.
- xii. Records of issues and inspections of PPE (Personal Protective Equipment) and safety equipment. See Foskor COP 65, Personal Protection Equipment for details.
- xiii. Records of issues and inspections of PEE (Portable Electrical Equipment). See Foskor COP 60, Portable electrical Equipment for details.
- xiv. Records of issues and inspections of tools and equipment. See Foskor COP 63, hand tools for details.
- xv. Records of daily, weekly, and monthly 2.6.1, 2.9.2 / SHE Rep safety inspections. See Foskor COP 22, SHE Inspections for details.
- xvi. Records of daily green-area and safety talks. See Foskor COP 7, Communication for details.
- xvii. Any other documents, certificates or records as requested by a Foskor 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.

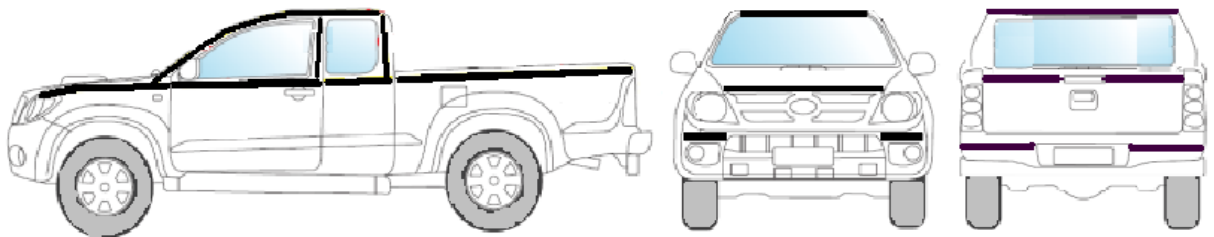
13.2 ADDITIONAL SAFETY REQUIREMENTS

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-OVER PROTECTIVE 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 drivers 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 Foskop mobile equipment training centre and authorised by a Foskop 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 Foskop 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 Foskop premises:
 - i) Obtain permission from the Foskop Safety & Security manager to operate his nominated service vehicle/s on the Foskop site. (Forms will be provided)
 - ii) Obtain a certificate of fitness from the Foskop Light Vehicle maintenance workshop supervisor or appointed Foskop 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 Foskop standard (COP 59) to ensure that they are safe and fit for use. (Forms will be provided)
 - d) See Foskop COP 59, Trackless Mobile Machinery for details.

14 PERMIT TO WORK REQUIREMENTS

Before any on-site work under this contract may commence, the appointed or successful Bidder shall obtain from Foskop a PERMIT TO WORK. The following guidelines are provided in order to assist the appointed Bidder in obtaining a PERMIT TO WORK. (See Foskop 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, Foskop Safety department.
- 2) Obtain a contract/order number from the Foskop 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 Foskop 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 Thursday between 08:00 and 09:00 at the Security training hall.
 - c) Write legal examination any Friday between 07:30 and 10:30 at the Security training hall. (Please book)
- 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 015 789 2531.
 - 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 Foscors on-site Clinic. The clinic can be contacted at 015 789 2427 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 Foscors 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 Foscors training, contact 015 789 2531 to book)
 - Lock out. (Provide own- or receive Foscors training, contact 015 789 2531 to book)
 - (b) All training not provided by Foscors must be verified by the Foscors 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.
 - 9) All of the appointed Bidder' on-site employees shall receive the basic Foscors site induction training at the Foscors Security office.
 - 10) All of the appointed Bidder' on-site employees shall receive site specific induction training provided by the Foscors 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 Foscors' own HIRA document, Annexure 1.2, contained in of COP 1, Foscors risk management (Available on request)
 - 12) Attach a detailed scope of work describing the required task and -outcome of this contract.
 - 13) All Foscors' appointed MHSA Regulation 2.9.2, 2.6.1, 2.13.1 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 Foscors 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.

15 MINIMUM CRITERIA FOR PERMITTING CONTRACTORS ON SITE

15.1 BACKGROUND

Foskor (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 Foskor operate.

To achieve this, Foskor 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 Foskor departments the absolute minimum requirement that is needed to ensure compliance with the Foskor 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 Foskor Phalaborwa site for a duration exceeding 5 days per year (either continuous or total days)

15.2 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 Foskor 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.

15.3 SHEQ REQUIREMENTS

15.3.1 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 Foskor 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)

15.3.2 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.

16 EXTRACT OF LETTER ISSUES TO CONTRACTORS BY FOSKOR

07 April 2014

To all contractors at Foskor

Dear Sir or Madam

Please note that as from 1st April 2014, Foskor will no longer prioritise offering of training for contractor's employees due to the current business restructuring exercise in the company. Contractors are expected to ensure that their training should be in place before they are engaged at Foskor. For your convenience, we have attached the contact details of accredited training providers which have been verified by our training department but contractors are not limited to use these only, any SETA accredited training service providers may be used but it remains the responsibility of the contractor to verify the accreditation of the service provider they choose to use.

Training certificate will be accepted if the following is on the certificate:

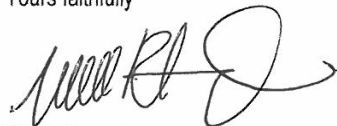
- Unit standard title
- Learner full names
- Learner ID number
- Competency achieved
- Date of assessment
- Assessors signature
- Training provider logo
- Training provider registration number and accreditation number
- SETA logo

Prior to any work permits being issued for work to be carried out on Foskor's premises, evidence of all training must be handed in at our training department and the following will be all the minimum requirements before access is granted to perform any contract work on Foskor:

- Basic health and safety principles (Induction)
- HIRA
- First aid training

It must further be re-emphasized that no access will be granted to contractor's employees before the basic training requirements are fully complied with.

Yours faithfully



R Rammupudu
Divisional Procurement Manager



Jakkie Dodds
Senior Manager: SHE

17 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	Yes	Yes	Yes	N/A	N/A	N/A		Yes	Yes			Yes					
Requirement based on risk assessment		Yes	Yes	Yes												YES										
Comp nr	Name																									

Legend:

Completed training	v
--------------------	---

Trained & Authorized as per COP	A
---------------------------------	---

Outstanding	X
-------------	---

18 SITE GEOGRAPHY

The plant is located at Phalaborwa, Limpopo, South Africa

18.1 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

19 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
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	19.1.1.1 General specifications & Procedures
GI-2	Latest Revision	19.1.1.2 Installation & Commissioning
GI-3	Latest Revision	19.1.1.3 General Equipment Specification
GI-4	Latest Revision	19.1.1.4 Field Instrumentation Specification

20 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

21 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.

21.1 PROJECT COMPLETION

On shutdown completion, the contractor will issue Foskop 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. Foskop representative

The handover certificate will be accompanied by the following document.

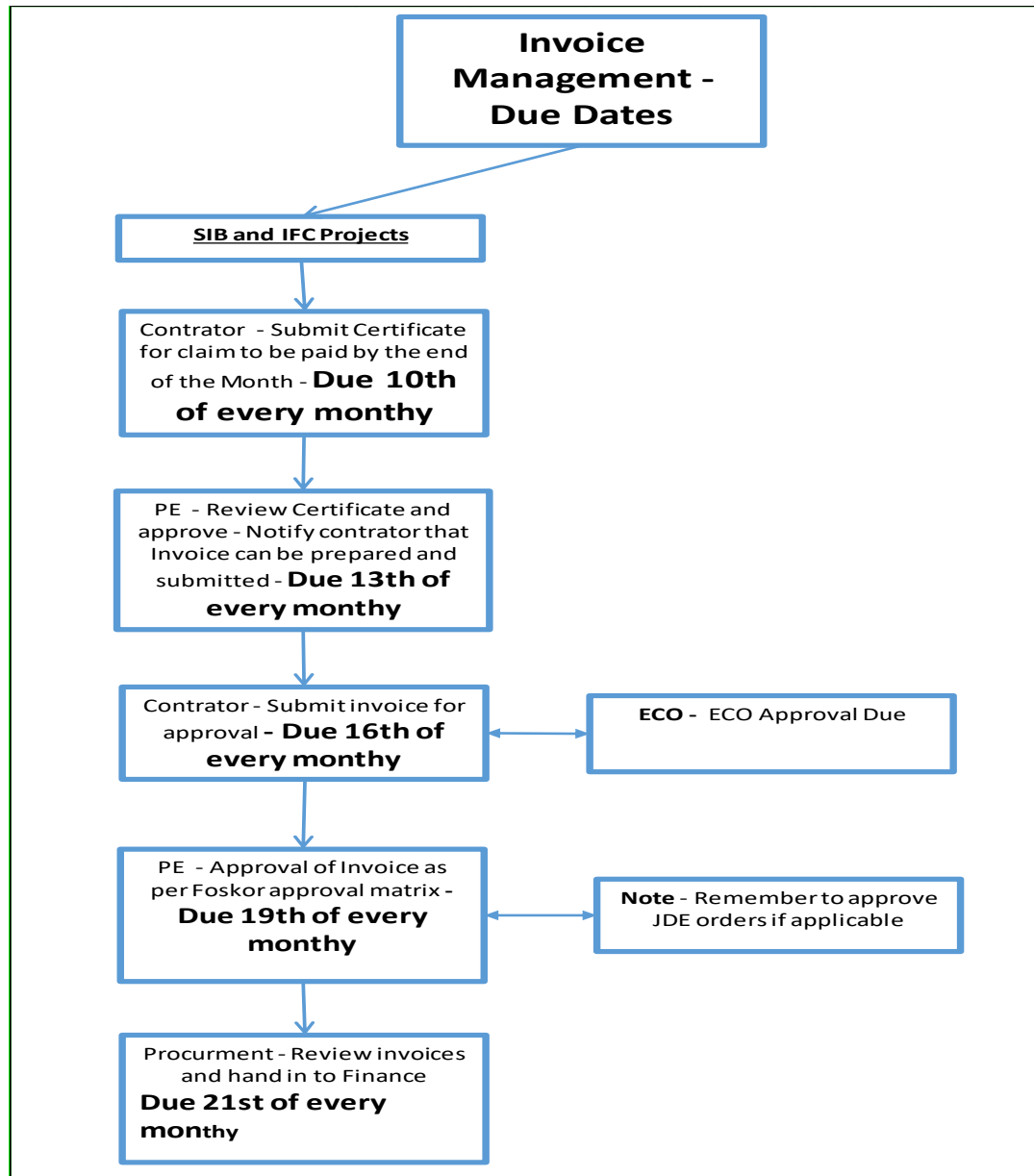
- i. Quality file
- ii. Safety File
- iii. Manuals and documentation

21.2 AFTER SHUTDOWN SERVICE OR REQUIREMENTS

- 1) Full description of guarantee and a 1year workmanship guarantee period to be attached to the official tender.
- 2) The successful contractor will be required to submit a plan a week after the shutdown outlining the dates when the defects arising out of shutdown work will be corrected.
- 3) Full description of planned support teams that will correct deviations or comebacks after the shutdown must be listed with telephone numbers, the teams' members must have full one year permit. NB: the team members may be called to attend to breakdowns related to comebacks from shutdown work on short notice, on the day the breakdown occurs.
- 4) Comebacks call out costs, material, and labour, will be from contractor's own costs. Foskop will carry out switching work required.

21.3 INVOICE DUE DATES

The due dates for certificate and invoices are outlined in the graphical presentation.



SIB = stay in business

IFC = investors financial capital

22 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.
- 5) Foskor reserves the right to test any contractor competency to verify that the contractor employees have the required skills to execute the shutdown of this nature. The test will be to demonstrate using the contractor test equipment if the contractor is able to perform required tests within time constraints of the main shutdown plan. The contractor is responsible for all the associated cost to prove their competency before the placement of the order.

22.1 TECHNICAL EVALUATION CRITERIA

Technical Criteria Description	Max. % Contr.	Proof/documents to be submitted	Note/ filing
1. Experience - length - team competence			
Organogram and CVs Scoring • No submission..... 0% • Organogram and CV provided 20%	20%	Organogram indicating relevant experience for technical team that will be involved in this project. Highlight team leaders for each team. Provide one-page CVs indicating relevant experience. Provide proof of Transformers, Breakers, CT and Relays maintenance testing certificate from an accredited training facility/OEM. Submit qualification verification report for the team from any independent accredited organisation.	Mark as Annexure A

<p>Company experience- Number of MV shutdown work/projects (electrical maintenance, repairs, testing, inspection)</p> <p>Scoring</p> <ul style="list-style-type: none"> • 0 project.....0% • 1-4 projects.....10% • >5 projects20% 	20%	<p>Give reference list with:</p> <ul style="list-style-type: none"> •project names •project technical description • valid contact numbers of client of the previous jobs of related/similar project. • Project value 	Mark as Annexure B
2. Capacity and Capabilities			
<p>a) Project execution methodology</p> <p>Scoring:</p> <ul style="list-style-type: none"> • 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%	<p>Provide a methodology on how you will execute the project within time, considering all technical aspects and safety requirements.</p>	Mark as Annexure C
<p>b) Detailed project schedule/ WBS</p> <p>Scoring</p> <ul style="list-style-type: none"> • No plan submitted -----0% • Plan with no team's allocation per task --- 7.5% • Detailed plan showing teams per task— 15% 	15%	<ul style="list-style-type: none"> • Provide detailed Project Schedule/WBS for the execution of this contract. • The project schedule must include all tasks, duration, and team allocation 	Mark as Annexure D
<p>c) Quality Planning, Quality assurance plan, Quality Control, cable handling plan</p> <p>Scoring:</p> <ul style="list-style-type: none"> • No response/ no document submitted-- 0% • Only quality plan for this project or previous quality plan provided ----- 5% • All requested documents submitted-- 10% 	10%	<ul style="list-style-type: none"> • Provide plan how to deal with Quality during execution plan. • Provide documentation of QC plan and Quality Assurance on 2 previous similar projects. 	Mark as Annexure E
<p>d) Contractor Equipment List</p> <p>Scoring:</p> <ul style="list-style-type: none"> • No list----- 0% • Insufficient equipment list ----- 2.5% 	5%	<p>Provide list of Company Assets - In South Africa - Focus is - LDV, Hand tools, Oil purification equipment and Test</p>	Mark as Annexure F

• Comprehensive equipment list----- 5%		equipment with valid calibration certificate.	
3. Legal compliance,			
a) FOSKOR Legal training certificate Scoring: • No certificate----- 0% • Only 2.6.1 certificate(s) submitted ----- 2.5% • Both 2.6.1 and LACA certificate provided or confirmatory memo provided- 5%	5%	Provide proof of 2.6.1 certificate(s) and LACA appointment or a confirmatory memo that the vendor will have 2.6.1 and LACA appointment before shutdown work.	Mark as Annexure G
b) TMM–Availability of drivers that are authorised to drive at FOSKOR mine Scoring: • No licence----- 0% • Licence provided, or memo provided----- 5%	5%	Provide proof FOSKOR drivers licences or a confirmatory memo that the vendor will have FOSKOR TMM driving license before shutdown work.	Mark as Annexure H
4. Training			
a) MQA based Basic health and Safety, First Aid, Hira Scoring: • No Training----- 0% • Partially Training----- 2.5% • All Trained or memo provided----- 5%	5%	Provide a training matrix with certificates of the MQA based Basic health and Safety, First Aid, Hira for the team or a confirmatory memo that vendor will have all mandatory training for the team before shutdown work.	Mark as Annexure I
TOTAL SCORE	100%		
To qualify for the second evaluation phase (commercial) your company need to score a minimum of 70% on the technical evaluation			

23 PRICING SCHEDULE

Tender No.:

Description: FOSKOR Mine - Electrical Shutdown Work 2026

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.

- f. A mandatory site meeting will be scheduled to take the Traffic specialist to the site to clarify the requirements of the scope.
- g. Any additions to the scope (based on the knowledge and experience) should be conspicuously indicated and quoted accordingly.
- h. 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 BOQ, 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.
- o. Completion of BOQ 1, BOQ 2, BOQ 3 and BOQ 4 still needs to be completed as part of this submission.

23.1 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			

23.2 PRICING SCHEDULE / SCHEDULE OF QUANTITIES OR BOQ

NUMBER	ITEM DESCRIPTION	AMOUNT R
1	BOQ 1 - Shutdown 2026	
2	BOQ 2 - Shutdown 2026	
3	BOQ 3 - Shutdown 2026	
4	BOQ 4 - Shutdown 2026	
5	BOQ 5 - Shutdown 2026	
6	BOQ 6 – Total Shutdown cost 2026	
7	Cost for Miscellaneous job 3.4.1	
8	Cost for Miscellaneous job 3.4.2	
9	Cost for Miscellaneous job 3.4.3	
10	Cost for Miscellaneous job 3.4.4	
11	Cost for Miscellaneous job 3.4.5	
12	Cost for Miscellaneous job 3.4.6	
13	Cost for Miscellaneous job 3.4.7	
14	Cost for Miscellaneous job 3.4.8	
15	Cost for Miscellaneous job 3.4.9	
16	Cost for Miscellaneous job 3.4.10	
17	Cost for Miscellaneous job 3.4.11	
18	Cost for Miscellaneous job 3.4.12	
19	Cost for Miscellaneous job 3.4.13	
20	Cost for Miscellaneous job 3.4.14	
21	Cost of Miscellaneous job 3.4.15	
22	Ps & Gs Costs	
22	a. Accommodation, vehicle, and Food cost on 1st day of the shutdown	
23	b. Accommodation, vehicle, and Food cost on 2nd day of the shutdown	
24	c. Accommodation, vehicle, and Food cost on 3rd day of the shutdown	
25	d. Accommodation, vehicle, and Food cost on 4th day of the shutdown	
26	e. Accommodation, vehicle, and Food cost on 5th day of the shutdown	
27	d. Cost of training for all the shutdown personnel as per the Foskor requirements	
28	f. Cost of completion of safety file as per Foskor standard	
29	g. Cost of completing the Foskor permit for the shutdown job	
30	h. Cost for additional 100 men hours (Skilled Artisans and Technical Operators to attend switchgear, Transformer and Generator during start up) who would stay on site after shutdown till the plant starts running normally to ensure equipment availability and contingency repairs	
31	Allow for Contingency lump sum of 10% to be spent at the discretion and approval by Foskor Engineer	
32	Any other cost (Please add and specify)	
33	Add:	
34	Add:	
35	Add:	
36	Add:	
TOTAL		

All price alterations must be signed for by the bidder confirming that such changes were made by the Bidder.

PLEASE NOTE THAT PRICE CHANGES WITHOUT A SIGNATURE WILL LEAD TO THE DISQUALIFICATION OF THE BID SUBMITTED.

NOTE: The onus lies with the tenderer to make sure that all formulas and calculations are correct. Calculation errors discovered during the evaluation process will be logged as a non-conformance and the tender/quotation will therefore be disregarded.

All price alterations must be signed for by the bidder confirming that such changes were made by the bidder. PLEASE NOTE THAT PRICE CHANGES WITHOUT A SIGNATURE WILL LEAD TO THE DISQUALIFICATION OF THE BID SUBMITTED.

NOTE: The onus lies with the tenderer to make sure that all formulas and calculations are correct. Calculation errors discovered during the evaluation process will be logged as a non-conformance and the tender / quotation will therefore be disregarded.

24 ACCEPTANCE

The conditions and requirements as stated in this “Scope of Work” are accepted with the following **exceptions / exclusions:** -

The conditions and requirements as stated in this “Scope of Work” are accepted with the following **inclusions:** -

Sub-contractor (Please provide list and function)

Failure to complete this form will lead to disqualification – Please do not leave blanks!

BBBEE Level	<input type="text"/>	Black Ownership	<input type="text"/> %	Black Woman Ownership	<input type="text"/> %
Tender Validity	<input type="text"/> Days	Manufacturing Period	<input type="text"/> Days	Installation Period	<input type="text"/> Days
Guarantee	<input type="text"/> Months	Commencement after receipt of official purchase order			<input type="text"/> Days
Payment terms	<input type="text"/>				

Price Basis for the duration of the contract / till supply of goods (Please tick):

Fixed	<input type="checkbox"/>	Duration of fixed price	<input type="text"/> 12 Months <input type="checkbox"/>	<input type="text"/> 24 Months <input type="checkbox"/>
Variable	<input type="checkbox"/>	Price Base Date	<input type="text"/>	

If variable provide price variation factors, percentages and formula in cover letter. (Please specify indices to be used)

Price variation factors & percentages (e.g. material, labour, fuel, overheads, admin etc)

Factor	%	Factor	%	Factor	%	Factor	%	Factor	%

Where prices include a foreign currency rate please provide:

% of price subject ROE	<input type="text"/> %	ROE	<input type="text"/> = ZAR
ROE Base Date	<input type="text"/>		

Note: If the above fields are not completed, it is confirmed that the quoted price/s are valid for the entire contract period mentioned and no escalation in the price is allowed under any circumstances.

I, _____ in my capacity as _____
 _____ for and on behalf of _____
 _____ hereby acknowledge that I have read and understand
 the Instruction to Tender and the Scope of Work as detailed in this document and accept all the Terms and
 Conditions of Tender

Signed at _____ on this the _____ day of _____
 _____ 20 .

Signature: _____

Witnesses:

1. _____ Name: _____

2. _____ Name: _____

For and on behalf of Foskor (Pty) Limited

Name: _____ Signature: _____

Designation: _____ Date: _____

Note: It is imperative to complete this schedule in full where applicable, marked "N/A" where not applicable and signed off in full, **unsigned bids will not be accepted**. All the supporting documentation requested with the tender document, scope of work and evaluation criteria need to be submitted with the tender. Tenders received without supporting documentation requested for the tender evaluation **will not be considered**.

23. **DOCUMENTED INFORMATION**

DESCRIPTION	RESP	LOCATION	FILE NAME / INDEX	RETENTION TIME (MINIMUM)
Scope of Works	Procurement	Procurement	Procurement	As per Procurement Policies and procedures

25 ANNEXURES

25.1 ANNEXURE A – TIME BUDGET

Task Name	Duration	Start	Finish
Main Power 2026/2027	38 hrs	Tue 26/06/22	Wed 26/06/26
Wegsteek: 2026/06/22	8 hrs	Mon 26/06/22	Tue 26/06/22
Switch out power EXT.8 & TTPS	2 hrs	Mon 26/06/22	Tue 26/06/22
Wegsteek 132Kv	6 hrs	Mon 26/06/22	Tue 26/06/22
Bay 73 Wegsteek Oil leak Buchholz	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 76 Wegsteek Side glass cleaning	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 77 Wegsteek Side glass cleaning	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 78 Wegsteek TRF Oil leak	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 154 Wegsteek Gens Oil leak Buchholz	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 155 Wegsteek Gens Oil leak Buchholz	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 156 Wegsteek Gens Oil leak Buchholz, Tap changer	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 157 Wegsteek Gens Oil leak Buchholz, Tap changer	2 hrs	Mon 26/06/22	Tue 26/06/22
Sub 11KV – PSZ	4 hrs	Mon 26/06/22	Tue 26/06/22
Bay 123 PSZ Oil leak Bushing	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 124 PSZ Oil leak bushing & tap changer	2 hrs	Mon 26/06/22	Tue 26/06/22
Sub 11KV - Main Sub 2	6 hrs	Mon 26/06/22	Tue 26/06/22
Rmu 11KV – Compressors	2 hrs	Mon 26/06/22	Tue 26/06/22
Sub 11Kv - Filter Plant	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 66 Filters oil leak Buchholz	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 65 Main Drain: oil glass faded	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 165 Buffer Dam: TRF Oil leak	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 69 Bush Pumps Oil leak	2 hrs	Mon 26/06/22	Tue 26/06/22
Bay 116 Foscem Oil leak bushing	2 hrs	Mon 26/06/22	Tue 26/06/22
Switch back power	2 hrs	Mon 26/06/22	Tue 26/06/22
Wegsteek: 2026/06/23	8 hrs	Tue 26/06/23	Wed 24/06/23
Switch out power EXT. 8 & TTPS	2 hrs	Tue 26/06/23	Wed 24/06/23
Wegsteek 132Kv	6 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11KV - Conveyor 101	6 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11KV – Overland	3 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11KV - Secondary East	3 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11KV - Mills 13 – 24	6 hrs	Tue 26/06/23	Wed 24/06/23
Bay 30: Mills 13-24 Oil leak Re-torque bolts	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 33: Mills 13-24: Oil leaks, HT bushings	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 18 Mills 1-12: Oil leak HT bushing	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 24 Mills 1-12: oil leak LT bushing	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 28 Mills 1-12: oil leak, replace side glass on tank	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 61 Mills 1-12: Oil leak on HT bushings	2 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11Kv - Magnetic Separators	3 hrs	Tue 26/06/23	Wed 24/06/23
Bay 37 Magsep Bay & trf needs cleaning	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 138 Magsep Bay & trf sand and mud	2 hrs	Tue 26/06/23	Wed 24/06/23

Bay 42 E&F: TRF needs cleaning leak on ct bushing	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 10 Sec west: Oil leak on LT bushing	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 8 Sec west: Oil leak on tap change	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 16 Sec East: Oil leak on LT bushing	2 hrs	Tue 26/06/23	Wed 24/06/23
Bay 68 Reagents Oil leak Tap switch	2 hrs	Tue 26/06/23	Wed 24/06/23
Sub 11KV -G-Bank Flotation	3 hrs	Tue 26/06/23	Wed 24/06/23
Switch back power	2 hrs	Tue 26/06/23	Wed 24/06/23
Wegsteek: 2026/06/24	8 hrs	Wed 26/06/24	Wed 26/06/24
TTPS: 2026/06/25	8 hrs	Thu 26/06/25	Thu 26/06/25
Switch out Power ESKOM & WEGSTEEK	3 hrs	Thu 26/06/25	Thu 26/06/25
Sub 132 Kv – TTPS	6 hrs	Thu 26/06/25	Thu 26/06/25
Bay 94 TTPS Oil leak Top/Tap	2 hrs	Thu 26/06/25	Thu 26/06/25
Bay 136 TTPS Oil leak Explosion valve	2 hrs	Thu 26/06/25	Thu 26/06/25
Bay 139 TTPS Oil leak Explosion valve	2 hrs	Thu 26/06/25	Thu 26/06/25
Bay 50 RWPS Oil leak bushing	2 hrs	Thu 26/06/25	Thu 26/06/25
Bay 51 RWPS Oil leak bushing	2 hrs	Thu 26/06/25	Thu 26/06/25
Sub 22KV – RWPS	3 hrs	Thu 26/06/25	Thu 26/06/25
Sub 22KV – TTPS	3 hrs	Thu 26/06/25	Thu 26/06/25
VT Oil leak	3 hrs	Thu 26/06/25	Thu 26/06/25
Sub 22Kv Van Ryssen Dam	3 hrs	Thu 26/06/25	Thu 26/06/25
Switch Back Power ESKOM & WEGSTEEK	3 hrs	Thu 26/06/25	Thu 26/06/25
Extension 8: 2026/06/ 26	8 hrs	Fri 26/06/26	Fri 26/06/26
Switch out Power ESKOM & WEGSTEEK	3 hrs	Fri 26/06/26	Fri 26/06/26
Sub 132 kV – Extension 8	6 hrs	Fri 26/06/26	Fri 26/06/26
Sub 11KV – Ext 8 Mill	3 hrs	Fri 26/06/26	Fri 26/06/26
Sub 11KV – Ext 8 Flotation	3 hrs	Fri 26/06/26	Fri 26/06/26
Sub 11KV – Ext 8 Tailings	3 hrs	Fri 26/06/26	Fri 26/06/26
Sub 11Kv Van Ryssen Dam	3 hrs	Fri 26/06/26	Fri 26/06/26
Switch Back Power ESKOM & WEGSTEEK	3 hrs	Fri 26/06/26	Fri 26/06/26
South Pit, PNL 10 CT's replacement	6 hrs	Fri 26/06/26	Fri 26/06/26
South Pit OHL/Pole repair	6 hrs	Fri 26/06/26	Fri 26/06/26
Restore poer as per Switching Matrix	2 hrs	Fri 26/06/26	Fri 26/06/26