




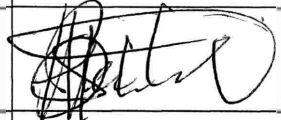


 Eskom	Procurement SOW	Technology
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PART 3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	This cover page <i>Employer's Service Information</i>	
C3.2	<i>Contractor's Service Information</i>	
	Total number of pages	26

C3.1: EMPLOYER'S SERVICE INFORMATION

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1. Description of the service

1.1. Executive overview

Majuba power station is a National key point, for business to ensure proper continuity of business and compliance to national key point standards, it is imperative to establish, implement and maintain access control system at Majuba Power Station for. The purpose of this contract is to provide Eskom Majuba the 24hours full time access control system at Majuba power station main entrance as described in 1.2 below. It is therefore imperative that this system be maintained on a monthly basis and defects attended on as and required basis for a duration of 5 years. The contract outlines the service provider's responsibilities to maintain and update key access control systems such as turnstiles, boom gates, alarm systems, and video surveillance systems. The contract will Perform scheduled maintenance Monthly, attend breakdowns and supply spares needed to ensure availability and reliability of Majuba access control system which includes the following:

1. 4 booms
2. 2 spike Barriers
3. 2 single full height turnstiles , bi-directional
4. 9 biometric readers
5. Switch port POE
6. Network switch
7. Network point
8. Enrolment Fingerprint BioID USB
9. Wiring (cables)
10. Surveillance system software (ZK teco)
11. 9 Cameras and screen

1.2. *Employer's requirements for the service*

1.2.1. General description of the *services*:

The Power Station Main Entrance Access Control System maintenance entails the following activities.

- Visual inspections
- System performance analysis
- Battery power supply checks
- Main power supply inspection
- Cleaning of control components (booms compartment, cameras, spikes , network switches etc)
- Checking functionality of all system components (keypads, readers, cameras, spikes, Booms) and recording any variations
- Checking network connection between controllers
- Bringing to customer's attention any damage or components that are likely to fail.
- Logging test results
- Checking data logs
- Loop checking
- Periodic system function testing(all access points)

1.2.2. Access control system details

1.2.2.1 Test Security Sensors

An access control system is only as effective as its sensors. These devices should be checked to ensure that they are in working order.

1.2.2.2 Physically Inspect and Clean Devices

Inspect and clean all of the system's devices and components of any dust or debris. the provider should be notified if an inspection turns up damage to a device or if a device is not functioning properly.

1.2.2.3 Test Alarm Systems

Modern access control systems are based on computer software, in any inspection should also focus on the functioning of the software system. Tests should be made to ensure software is properly communicating with security devices. Computer systems should also be tested to make sure they can properly communicate with first responders and a third-party security provider. Any alerts to outside parties should be correct and performed quickly.

An access control maintenance checklist should also include testing the connection to the fire alarm systems, as these systems can be somewhat interconnected. Obviously, the local fire department should have full knowledge of any fire alarm tests before they are conducted.

1.2.2.4 Check for Software Updates

Ensure software Out-of-date software can be a critical flaw in any access control system. If software is obsolete, it can significantly affect the system's ability to detect and report unauthorized access. Access control software should also be able to properly communicate with outside parties.

While most access control systems present notifications for software updates and many systems update automatically, an access control maintenance checklist should still include the update status of any software.

1.2.2.5 Check the Power Supply Output

- Begin by ensuring that the power supply to your system is consistent and within specified limits.
- Use a multimeter to measure the output. If it is different from the recommended range, consider servicing the supply unit or installing a replacement.

1.2.2.6 Check the Battery Output

- Access control systems typically have backup batteries of varying voltages dependent on system draw.
- Using a multimeter, measure the battery's output. Ensure it aligns with the manufacturer's specifications.

1.2.2.7 Validate Battery Performance

- To check if the battery can support the system during power failures:
- Turn off the main power supply.

- Monitor the system's operations to confirm the battery provides adequate support. If it doesn't, it will need to be replaced with a new unit with the correct voltage and amperage.

1.2.2.8 Secure Network Sockets and Contacts

- Inspect network sockets and contacts for any loose connections.
- Ensure all connections are securely in place and in good condition. Replace any damaged components.

1.2.2.9 Assess the Voltage Supply at the Electric Locking Device

- Use a multimeter to check the voltage supply at the electric locking device.
- Ensure the reading is within the specified range for optimal operation.

In our video, you will see an overhead surface mounted maglock is being checked by the maintenance contractor.

1.2.2.10 Verify Voltage at Activation Devices

- measure the voltage at all activation devices, ensuring they're getting the appropriate power for smooth operation.

1.2.2.11 Test Activation Devices

Check the functionality of:

- Push to exit buttons or touch-free exit buttons.
- Card readers
- Access control keypads
- Booms and its internals

Make sure each device operates without glitches, registering inputs correctly.

1.2.2.12 Clean for Optimal Performance

- Regularly clean products, especially maglock contact plates and armature surfaces.
- This prevents dirt accumulation, ensuring devices work effectively. A visual inspection may not be sufficient as even small particles of dirt can influence the magnetic contact.

1.2.2.13 Document Observations and Recommendations

- After your inspections and tests, collate all findings.
- Provide a detailed report to the client, outlining:
 - Observations made
 - Potential risks identified
 - Recommendations for improved security

1.2.2.14 MAINTENANCE SCHEDULE

Step 1: Do a visual inspection.

1. See if there is any physical damage to the Boom Arm.
2. See if Housing has moved from original installed position.

The above will give an indication of any damage to the unit.

Step 2: Mechanical Inspection

1. Open Access Door to Housing.
2. Remove lid by unscrewing 2 x lid studs left back on right front corner.
3. Do a visual inspection on mechanism. See if any movement has occurred in boom adaptor or linkages. Re-adjust if necessary.

4. Tighten all bolts, nuts and grub screws on mechanism.
5. Grease 2 x pillar block bearings and 2 x rose bearings once every 3 months.
6. Check condition of rubber stops. If any wear is noticeable, replace to same settings.

Take Note:

The rubber stops needs to be in good condition as worn or no rubber stops can cause the motor shaft to break. Rubber stops must be checked every 60 days.

Step 3: Mechanical Lock

The mechanical lock, what this means is, when the boom is switched on and is in the down position, you can't manually lift the boom arm up if the mechanical lock is set correctly. The motor crank arm is linked to the link rod. In the down position these 2 arms must be in a straight line. This is achieved by turning the rubber stops in or out.

If it is turned in too much and you break the straight line, the boom won't lift on power failure and in some cases with the power on, it won't lift. If the rubber stop is turned too far out, the boom arm won't lock in the down position with the power switched on.

The Test

To test the mechanical lock, with power on, lower the boom arm using the control logic with the mode button switched to the down position. Switch power off at circuit breaker.

Boom must lift slowly to fully open position without any help.

Before adjusting your spring tension to lift the boom arm, check the rubber stop position.

First switch the power on and take the boom arm to the down position if crank arm and link rod is in a straight line. Then, you can look at adding more tension to the barrier spring. If more than one spring is in the boom, adjust all the springs, not just one spring.

Caution

Repeat the test.

Remember the boom arm must lift up slowly, do not over tension the springs, this will slow the boom arm down when it is closing.

Step 4: Electrical Inspection

1. Switch off main supply to barrier.
2. Check all electrical connections to panel.
3. Switch power back on.
4. Check settings on detector, see if it is still the same as when barrier was commissioned.
5. Check for any physical damage to detector.
6. Look for any physical damage to Logic.
7. Check settings on Barrier Logic - compare settings to commissioning settings.

NB. Ensure that the barrier is always locked to prevent unwanted personnel to have access to the barrier.

1.2.2.15 Resources required.

SKILL	GRADE AND RELATED EXPERIENCE	MINIMUM QUALIFICATION
1 x Technician	T11 and minimum of 3 years of relevant Technical experience	N6 diploma/ National Diploma, Millwright or Electro mechanical
1 x semi skill	None trade, Related technical experience will be an added advantage	Matric with Maths & Science

1.2.2.16 Spares required.

1. IMAT Turnstile Controller MATSD008
2. 2 x Hikvision Ethernet Switch, model:DS-3E1105P-EI, I/P 48V≈1.35A
3. 2 X Ethernet switch POE , (4) x PoE+(2)x10/100 Base-T (Utepo NW100 4 Port PoE Switch with 2 Uplink Ports).

4. Hikvision 16 channel NVR
5. Hikvision 32 channel NVR
6. 2 x ZKteco inbio pro (460)
7. 2 x Boom gates system - Genius Traffic Barrier
8. 100 Hikvision High precision cameras
9. 500 m Network cable Cat6/cat 5

1.3. Management strategy and start up.

1.3.1. Compulsory Meetings

The Contractor will attend all the relevant technical and quality related meetings. (Venue, time and date will be confirmed). With prior notification, the services of the Contractor can also be required at other meetings.

The Contractor will be represented by at least the supervisor for all relevant meetings i.e. should additional personnel be required, they are to accompany the supervisor.

1.3.2. Management meetings

The *Service Manager* shall arrange a monthly meeting at a time to suit attendance by both *Service Manager* and the *Contractor* for every month throughout the service period. The meetings shall be chaired by the *Service Manager* as and when required. All meetings shall be recorded using the Employer's attendance register and minutes taken. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

In the meeting the *Service Manager* and the *Contractor* shall review the previous month's actions and responsibilities in terms of the contract, decide what corrective actions are to be taken (if any), and by whom the contract requires them to be taken and by what time; review, agree and sign a summary listing of work carried out during the month under review which shall contain as a minimum:

- a) safety incidents for the month,
- b) authorisation of personnel,
- c) a schedule of any major incidents or unplanned work,
- d) outstanding invoices to the Contractor,
- e) any substantial disagreements between the Service Manager and the Contractor and any disputes notified in terms of the contract,
- f) the Contractor's general comments on the work done during the month under review,
- g) the Service Manager general comments on the work done during the month under review,
- h) any notable achievements,
- i) any contractual or commercial issues,
- j) Defect notifications raised during month,
- k) Low service damages during the course of the month;
- l) review future work and add items to the Accepted Plan for any future non routine work;

- m) review relationships between representatives of both Parties and attempt to address any adverse issues through the action plan; and
- n) Review any opportunities that can be explored to capitalise on value arising from this contract.
- o) Review attendance registers and overtimes where applicable.

The Service Manager shall prepare a monthly report in the form of minutes of the above referenced meeting, ensure that both he/she and the Contractor have agreed and signed the minutes of the meeting as proof of acceptance.

The *Site Service Manager* will chair and schedule the site meetings. *The meeting schedule is as follow:*

Name	Frequency	Attendance by relevant Employer's personnel:	Attendance by relevant Contractor's personnel:
Contract Kick-off	Once off	<i>Site Service Manager</i> , Plant area supervisor/manager and/or other necessary representatives.	<i>Contractor</i> , Core crew complement and/or other necessary representatives.
Early Warning	As and when notified by either party	<i>Site Service Manager</i> , Plant area supervisor/manager and other relevant personnel.	<i>Contractor</i> and other relevant personnel.
Technical and/or non-conformance	At least once every 3 months	<i>Site Service Manager</i> , Plant area supervisor/manager, Plant Engineer and other relevant personnel.	<i>Contractor</i> and other relevant personnel.
Safety Incidents	For each occurrence	Safety Representative, <i>Site Service Manager</i> , Plant area supervisor/manager and other relevant personnel involved.	<i>Contractor</i> Safety Representative, Contractor and other relevant personnel.
Contractor Monthly Safety Meeting	Monthly	Proof of meeting to be submitted to the <i>Site Service Manager</i> .	<i>Contractor</i> Safety Representative, Contractor and other relevant personnel.
Monthly Employer Safety Meeting	Monthly	Meeting chaired by <i>Employer</i>	<i>Contractor</i>
Assessment meeting	Between 20 – 25 th of each successive month	<i>Majuba Power Station, Specific conference room TBA</i>	<i>Site Manager, Outage coordinator, Service manager</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the service. Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting.

1.3.3. *Contractor's* management, supervision and key people

The *Contractor* shall appoint a trained Site Supervisor who shall manage all contract and technical related issues. Proof of experience and qualifications of the *Contractor* site Supervisor must be submitted within one week of the contract start date. Change to this key person shall be communicated in writing within one Month of such change to the *Service Supervisor*.

The *Contractor* site Supervisor to be available after hours telephonically. Where the *Contractor* site Supervisor is not available due to excessive hours worked, leave or Illness a suitably qualified alternate must be made available.

The *Contractor* site Supervisor must be able to communicate satisfactorily in English and have formal education as per Eskom Job description requirements. If at any time, it is found that the *Contractor* site Supervisor ability to either supervise the workers, practice good communication skills (verbal or written) or exercise competency is lacking, the *Service Supervisor* may give instruction for the removal of such person from site.

The *Contractor* Quality Control Technicians shall be trained and meet all requirements as per attached Job Profile Appendix A. Proof of qualifications and experience of the Quality Control Technicians must be submitted before the contract start date.

The *Contractor* shall ensure that all his personnel become authorized as Authorised Supervisor/s (AS), in terms of the Eskom Plant Safety Regulations (PSR) within 4 months of the contract start date. This authorisation is obtained by attending a course which includes written evaluations (allow 10 days duration) and undergoing a verbal evaluation (1 to 2 hours) within three months after course results indicate that the candidate has passed. As authorisations are valid for two years only, the *Contractor* must ensure that their personnel are re-authorised before the authorisation lapses. The necessary training and evaluations will be provided by Majuba free of charge and the *Contractor* employees must be available to attend, when the course is scheduled.

All key people undertaking work shall be appropriately trained, Qualified, Skilled and competent to perform such work and proof thereof must be submitted. Incidence of poor quality work and non-adherence to site regulations and procedures will prompt the Employer to request the immediate and permanent removal of such person from all site activities.

Qualification and Qualified, are to be interpreted according to the minimum requirement as per the Occupational Health and Safety Act firstly and then Eskom's "job profile" for positions within the Contractor's organizational structure and be supported by Eskom's "Recruitment and selection procedure" Unique Identifier: 32-1023.

1.3.4. Police clearance

- a) All Contractor personnel to undertake Police clearance
- b) Certificates to be provided to the Service Manager at least 2 weeks before commencement of work
- c) The Service Manager reserves the right to refuse entry to all persons whose criminal records indicate that their presence on site might create an unsafe and insecure environment to Majuba Power Station.

- d) The following website can be used to guide the process.
http://www.saps.gov.za/services/applying_clearance_certificate.php

1.4. Documentation control

Correspondences are in writing. Formal correspondence to be on the letterhead of the organisation and addressed to the relevant person.

Each Task Order, Assessment and Defect Notification have a unique number for ease of identification.

All Communications will be filed and kept on site at all times as it is crucial to have the correct communication structures. These communication documents should at all times adhere to the NEC 3 Term Service Contract communication requirements.

1.5. Invoicing and payment

Within one week of receiving a payment certificate (contract assessment) from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Service Manager's* payment certificate.

The *Contractor* shall address the tax invoice as per issued Task Order and shall include on each invoice the following information:

- 1) Name and address of the Contractor and the Service Manager;
- 2) The contract number and title;
- 3) Contractor's VAT registration number;
- 4) The Employer's VAT registration number 4740101508;
- 5) Description of service provided for each item invoiced based on the Price List;
- 6) Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- 7) (add other as required)

The *Contractor* only invoice in accordance to the amount due on the signed off assessment. Invoices are to be forwarded directly to invoiceseskomlocal@eskom.co.za in PDF format, who will perform three-way matching between the SAP 45-document, the service entry and the invoice (SAP 51-document) before payment is made. The invoice cannot be processed for payment unless all three these documents are in agreement. (Note that matching can only be done once the service entry has been approved).

If there is Cost Price Adjustment (CPA) applicable to the contract, the *Contractor* must issue a separate invoice for CPA so that if there are any issues on the CPA the rest of the invoice can be paid while resolving the CPA issues. The CPA tables must be attached to the service entry by the Eskom *Service Manager*.

1.6. Things provided at the end of the service period for the Employer's use

1.6.1. Information and other things

All documents, procedures and systems developed to improve Quality Management at Majuba, to be handed over to the *Employer* at the end of the contract period.

1.7. Management of work done

1.7.1. Requirements

1.7.2. Contractor unable to supply resources

If the *Contractor* becomes unable to supply the resources required to provide a service at a Date, he shall immediately notify the matter to the *Service Manager* as an early warning. The notification shall include recommendations as to how the service w can be completed

1.7.3. Emergency service

Emergency service is required when normal administration cannot be achieved and permits the *Contractor* to provide a service on a verbal instruction. The *Service Manager* may at any time instruct the *Contractor* orally, followed up in writing, to provide a service which is of an emergency nature, including work which the *Contractor* may require a subcontractor to undertake. The *Contractor* puts the work into effect.

Where there is emergency work, whether it is a Task Order or compensation event driven emergency, the following process to be managed by the *Service Manager* and *Contractor* within 24 hours

- a) A Task Order is put in place to allow work to start immediately, and to continue for long enough to get the final SOW, quality requirements and programme in place.
- b) An identified team is to agree to a timetable for finalising the final SOW, quality requirements, and Programme.
- c) This team is also to be immediately tasked to ensure a preliminary SOW, quality requirements and Programme.

In the case of a sudden equipment failure, the *Contractor* shall immediately conduct a preliminary investigation including a damage report with recommendations for repair and submit it to the *Service Manager*.

For all planned work, the *Contractor* must request approval from the *Service Manager* before work commence. A planned work application form (Appendix C) needs to be completed and approved by all relevant parties before commencement. Failure to comply will result in non-payment.

A Call out / Emergency overtime form (Appendix C) must be complete and signed by all relevant parties if the *Contractor* personnel gets call out afterhours for emergencies.

For overtime during outages, an application for Outage Overtime sheet (Appendix C) to be completed and approved before the start of the Outage activity.

2. Health and safety, the environment and quality assurance

2.1. Health and safety risk management

The *Contractor* shall comply with the health and safety requirements that follow:

2.1.1. General

- a) To ensure compliance, a monthly audit will be conducted on the *Contractor* Safety file.

- b) The Contractor must report to the Service Manager the total man hour's work on the last day of each consecutive month.

2.1.2. Eskom Life Saving Rules

Five Life Saving Rules have been developed that will apply to all Eskom employees, agents, consultants and *Contractors*.

Rule 1: Open, Isolate, Test, Earth, Bond, And/or Insulate before touch - that is any plant operating above 1000 V.

Rule 2: Hook up at heights - no person may work at height where there is a risk of falling.

Rule 3: Buckle up – no person may drive any vehicle on Eskom business and/or on Eskom premises: unless the driver and all passengers are wearing seat belts.

Eskom takes a "ZERO TOLERANCE" attitude to drivers and passengers who do not wear safety belts when driving in any vehicle on Eskom Business and/or on Eskom premises. The violation of this very important safety rule as well as any safety rule while performing work for or on behalf of Eskom may result in Eskom terminating your obligation to perform work in terms of your contract with Eskom.

All occupants must wear their safety belts properly, and must never put the shoulder belt under their arm or behind their backs. Drivers and all passengers must buckle-up at all times for the sake of themselves and their families.

Rule 4: Be sober -no person is allowed to work under the influence of drugs and alcohol.

Rule 5: Use a permit to work – where an authorization limitation exists, no person shall work without the required permit to work.

2.1.3. Plant Safety Regulations

- a) The *Contractor* site Supervisor and Technicians must be authorised according to the Eskom Plant Safety Regulations (PSR) as an Authorised Supervisor (AS). Such authorisation shall be obtained within 6 months of starting at Majuba, and maintained thereafter. Training will be supplied by the *Employer* with no additional cost to the *Contractor*. Failure on first attempt, the *Contractor* employee will be allowed to rewrite for a second attempt. Failure after the second attempt will be at the cost of the *Contractor*.
- b) The *Contractor* must supply all their technicians, where the requirement is to enter substations to witness work with Category 2 Arc flash suits. These are to be supplied at the *Contractors* cost.

2.1.4. Fire Precautions

- a) Any tampering with the *Employer's* fire equipment is strictly forbidden.
- b) All exit doors, fire escape routes, walkways, stairways and stair landings and access to electrical distribution boards must be kept free of obstruction and is not be used for work or storage at any time. Firefighting equipment must remain accessible at all times.

- c) In case of fire, report the location and extent of the fire to Electrical Operating Desk at 017 799 3803 and it is expected that the *Contractor* shall take the necessary action to safeguard the work area in order to prevent injury and spreading of fire.
- d) All Hot Work on site must be done as per the Hot Work Procedure, SERV/FIRE02

2.1.5. Reporting of incidents

- a) The *Employer* follows an incident prevention policy which includes the investigation of all incidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incident. The *Contractor* is expected to co-operate fully to achieve this objective and have his own incident reporting system which is compatible to the site system. The *Service Manger* must be informed immediately of all safety incidents including fatalities, medicals, first aids and near misses. Any damage to property or equipment must be reported to the *Service Manger* as soon as reasonably practicable but not later than 4 hours after the incident. A Summary of the Incident is to be submitted to the *Service Manger* within 4 hours of the Incident.
- b) NOTE: The above-mentioned reporting does not relieve the *Contractor* of his legal obligation to report incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act and to perform investigations of all incidents.
- c) The *Contractor* must provide the Safety Risk Officer with a monthly safety statistics report by the first working day of every month, even if no incidents have occurred.

2.1.6. Vehicle Safety

- a) Drivers, passengers and pedestrians must obey safety requirements in terms of the National Road Traffic Act, No 93 of 1996, as amended, including other relevant provincial or local requirements.
- b) All drivers must possess a valid, national driver's licence of the correct category/class, must not be under the influence of alcohol or other drugs which will impair the senses and must be authorised by the Contractor to drive the company vehicle.
- c) All vehicles must be roadworthy and vehicle specifications must include at least front airbags for the driver and the front passenger and an anti-lock braking system (ABS).
- d) All vehicles must be driven with due consideration for personnel and property. A maximum speed limit of 40 km/hour will be adhered to on the premises at all times.
- e) Transportation of passengers on the back of open or closed light delivery vehicles (LDVs), trailers, trucks or any other form of transportation is not allowed. It is a legal requirement for all Employers to provide safe transportation of all employees both on and off site.
- f) No person may be transported in the back of vehicles closed by means of canopies, unless provided with factory-fitted or manufactured-approved, proper seating and safety belts, i.e. crew cabs.
- g) Drivers and others entering Majuba Power Station will be subjected breathalyser testing.
- h) The driver/s must ensure that their passengers are seated and wear seatbelts at all times.
- i) Tools and equipment in vehicles must always be properly secured.

2.1.7. Health and Safety Arrangements

- a) The *Contractor* shall comply with the guidelines set out in the Majuba Standard BIA/RM/STD/01 titled "Safety, Health and Environmental specification to be met by *Contractors*"
- b) The *Contractor* must ensure that all his personnel attend a Health and Safety Induction Course prior to starting with the works. A one hour course will be provided free of charge by the *Employer* and will be valid for the duration of one year. It is the *Contractor's* responsibility to make an appointment for the induction and ensure that re-induction is done timeously.
- c) Safety Risk Management has the right and authority to visit and inspect the *Contractor's* workplace or site establishment to ensure that tools, machinery and equipment comply with the minimum safety requirements.
- d) The *Service Manager* shall be entitled to instruct the *Contractor* to stop work, without penalty to the *Employer*, where the *Contractor's* personnel fail to conform to safety standards or contravene health and safety regulations. The *Employer's* Representative is entitled to instruct the *Contractor* to discipline his employees, to enforce disciplinary action and to submit a report to the *Employer's* Representative. The *Contractor* shall implement additional health and safety precautions wherever necessary.
- e) The following Health & Safety requirements should be complied with:
 - The *Contractor* is required to supply a Certificate of Competency for his/her employees if the work will be done under the following conditions:
 - Confined Spaces
 - Heights
 - Heat stresses
 - Cold stresses
 - The *Contractor* to provide the *Employer* with a signed register as proof of free issue of adequate Personal Protective Equipment (PPE) to be used by his/her employees (preferably SABS approved). Additionally, the *Contractor* shall provide overalls for his staff with clearly identifying motifs depicting the company name.
 - Sub-contractors - the principal contractor must request approval for the use of any sub-contractor. Proof must be given to Eskom that the sub-contractor/s have the necessary competence and resources to carry out the work safely and to ensure that due care of the environment will be exercised.
 - Medical certificate of fitness shall be issued by a Registered Occupational Health Medical Practitioner only.
- f) The *Contractor* appoints a person, qualified in accordance with the SHE Requirements, as the liaison with the Eskom Safety Officer for all matters related to health and safety and this person shall be contactable telephonically 24 hours a day.
- g) The *Contractor* confirms that it has been provided with sufficient written information regarding the health and safety arrangements and procedures applicable to the Services to ensure compliance with it and all employees, agents, Subcontractors or mandatories with the SHE Requirements while providing the Works in terms of this contract. As such, the

Contractor confirms that this contract and the relevant Eskom Regulations referred to in this contract constitute written arrangements and procedures between the *Contractor* and the *Employer* regarding health and safety for the purposes of section 37(2) of the OHSA.

2.1.8. Company Branding

- a) The Contractor shall provide all overalls (when needed) for his staff with clearly identifying motifs depicting the company name.

2.1.9. Special requirements

- a) The Work area includes the coal stock yard and tippler, The Site Rule is that all persons entering the Coal stock yard and Tippler area will wear reflective vests or jackets. Reflective Strips on the over although innovative are not sufficient. Any person discovered not wearing appropriate reflective clothing will be requested to leave Site.

2.1.10. Exposure to Silica

- a) The Risk of exposure to Silica is high. The *Contractor* is responsible for ensuring that ALL employees working on the Coal plant wear appropriate SABS approved dust mask and that they are used correctly.
- b) The *Contractor* is to ensure that Lung X-rays are performed on an annual basis and that the reports are issued by a Medical Doctor Qualified to recognise Silica related dust Lung ailments or Diseases for all their personnel that are doing work on the Coal plant.
- c) The above reports must be submitted to the *Employees* Medical Centre for verification.

2.2. Environmental constraints and management

All Legislative, Eskom and Majuba environmental policies are to be adhered to:

2.2.1. Work carried out in terms of:

The *Contractor* will be required to ensure that all works are carried out as per the **ISO 14001** standard and **Majuba's Environmental Policy, BIA/ENV/04 and Waste management Policy, BIA/ENV/01**. The following environmental requirements are complied with at all times:

- a) Zero liquid effluent discharge.
- b) No chemicals will be dumped into the station drains or on the premises.
- c) No oil or waste will be dumped in an unauthorised area or unlicensed waste site.
- d) Asbestos will be handled and stored according to Act 15 of 1973 (Hazardous Substances Act).
- e) No materials or waste will be burnt on site. Hazardous substances shall be handled and stored according to the hazardous substances Act no 15 of 1973. No effluent shall be discharged into the public streams.
- f) Contractors activities/services shall be carried out as per the above procedures and QM58

2.2.2. New Environmental Legislation

The *Contractor* will be responsible for complying with any new environmental requirements, relevant to the Services Information that may come into effect as part of Majuba Power Station's Environmental Management System (EMS) during the duration of this contract.

2.2.3. Existing Environmental Legislation

In order to protect Eskom's environmental interests whenever a product or service is provided by a *Contractor*, the *Contractor* complies with all relevant and appropriate environmental legal requirements contained in governmental notices, laws and regulations promulgated by the central and provincial governments.

2.2.4. Liability

The *Contractor* accepts all responsibilities, accountabilities and liabilities associated with such legal requirements, unless specifically excluded from a contract by a mutually acceptable written agreement.

2.2.5. Hazardous substances

If a product is classified as a hazardous substance, a material safety data sheets (MSDS) must accompany delivery/use. In accordance with the Occupational Health and Safety Act (OHSA), Act 85 of 1993 section 10 and 11. If any hazard is identified by the Contractor, he must immediately inform the *Employer*.

2.3. Quality assurance requirements

The Contractor must possess an accredited Quality Management System. A pre-approved Quality Control Plan (QCP) is to be used for the tasks at hand.

2.3.1. Quality Requirements

The Contractor will additionally comply with the Employer's Quality Requirements as specified in Standard **BIA/QA/STD/01**. This includes the *Contractor's* ISO 9001 Registration Certification of Compliance.

2.3.2. Contract Quality Plan

The *Contractor* prepares a Contract Quality Plan, for acceptance by the *Employer*. Any changes to the accepted Document shall be submitted as a proposed revision for acceptance.

The *Contractor* prepares an index of Quality Control Plans as per scope of work. The Quality Control Plans to be submitted to the *Service Manager*, who will in consultation with Engineering-, Quality Department and Authority review, insert intervention Points and approve. Work may not commence until the plans are approved. Any Quality Control Plan that's been revised due to change of operation to be re-submitted for approval by all parties.

2.3.3. Quality Control Documents

All quality control documentation must be submitted to the Project Manager/ Employer's Representative/ *Employer's Agent* within two weeks after contract award for written approval.

3. Procurement

3.1. People

3.1.1. Minimum requirements of people employed

Proof of the *Contractor's* personnel competency in terms of Regulation 18 (5 and 6) of the OHS Act is required by the *Employer* (Refer to Appendix A for requirements).

All Artisans are qualified and in possession of a valid trade test certificate.

The *Contractor* will provide trained personnel for the implementation of all work.

The *Contractor* remunerates his employees at not less than the proclaimed statutory wage (Minimum Wages Act). Failure in this regard will result in non-performance and therefore immediate termination of the contract.

In order to fully evaluate a tender, the *Contractor* is to submit an organogram, which is to include the relevant skills levels.

According to the SKILLS DEVELOPMENT ACT 97 OF 1998, the following definition for artisans and trades are emphasised:

- Artisan means a person that has been certified as competent to perform a listed trade in accordance with this Act. (Definition of "artisan" inserted by section 1(a) of Act 37 of 2008)
- Trade means an occupation for which an artisan qualification is required in terms of section 26B. (section 1(i) of Act 37 of 2008)

Section 26C section 2 (a) states the following – "No person, whether employed or self-employed, may hold themselves out to be qualified as an artisan in a listed trade unless that person is registered as an artisan in terms of subsection (1)"

With reference to the Act, all personnel are adequately qualified for the task to be performed. Qualifications of all staff to be submitted to the *Service Manger* two weeks prior to commencement of work and approval of qualifications of staff to be granted within one week of receipt of qualifications.

The *Contractor* submits requests to change any pre-approved staff together with proof of qualifications for approval prior to changing the staff.

3.1.2. Supplier Development and Localisation Plan

"Local to site "means all areas that fall within the Dr Pixley Ka Seme Municipal area.

The *Contractor* is required:

- a) To provide a high level Supplier Development & Localisation implementation plan which stretches for the duration of the contract within one month after contract award.
- b) To provide an explanation and action plan for deviation from the proposed plan
- c) The *Contractor* is also required to submit its Human Resource Plans indicating the number of new jobs that would be created or retained due to this project.
- d) The *Contractor* is required to procure general labour from Dr Pixley Ka Seme. Only skilled and professionals would be procured from outside of Dr Pixley Ka Seme Municipality Area.
- e) The Candidates for Skills Development would be sourced from Dr Pixley Ka Seme first, then Mpumalanga, before the rest of RSA.
- f) The candidates may be developed directly by the supplier, through the suppliers' own supply network or through the SETA accredited training providers.
- g) Candidates are to be currently unemployed graduates from FET (Further Education and Training) colleges, universities or matriculates. These candidates shall also be representative of the population demographics of Mpumalanga province
- h) The *Contractor* submits proposals to the *Employer* for acceptance on how he will employ and train local labour in the following positions:

Refer to SDL Matrix Annexure H

3.2. Subcontracting

3.2.1. Preferred subcontractors

All subcontractors need to be approved by the *Service Manager* before the subcontractor gets to site.

3.2.2. Subcontract documentation, and assessment of subcontract tenders

The *Contractor* prepares subcontract documentation. The use of the NEC system is recommended on how subcontract tenders are to be issued, received, assessed and awarded.

3.3. Plant and Materials

3.3.1. Specifications

None

3.3.2. Correction of defects

Audit findings and Non Compliance Report findings to be completed and closed within 7 working

3.3.3. *Contractor's* procurement of Plant and Materials

All equipment used to supply the *Service* is supplied by the *Contractor*.

3.3.4. Tests and inspections before delivery

It's a requirement from the *Employer* for the *Contractor* to do off site inspections. Pre-approval from the *Service Manager* to obtained before inspection date.

3.3.5. Plant & Materials provided "free issue" by the *Employer*

- a) All spares will be supplied by the *Employer* unless requested otherwise; it will become a compensation event to the *Contractor*.
- b) Scaffolding, lagging removal and replacement of lagging will be provided by the Employer.

4. Working on the Affected Property

4.1. Employer's site entry and security control, permits, and site regulations

The Entry to site is only approved once the following is adhered to:

- a) The *Contractors* Safety file is to be approved by the *Employer's* Safety department.
- b) All personnel must undergo screening for Criminal records and outstanding warrants
- c) Site-specific induction is to be done by all personnel.
- d) Refer to the General Works information

4.2. People restrictions, hours of work, conduct and records

.N/A

4.3. Health and safety facilities on the Affected Property

There is a medical station on site and a fire and rescue service for assistance with serious incidents and treatment of all serious injuries during normal working hours. Emergency services are available during normal working hours by dialling 9222 from any site phone or else 017 799 2138 (medical centre) 017 799 3192 (fire and rescue) and also available after hours by dialling 9222 from any site phone or else contacting the Electrical Operating Desk (EOD) at 017 799 3803 (all hours). However, the *Contractor* is expected to handle all minor incidents in-house by providing a first aider and a first aid kit.

4.4. Environmental controls, fauna & flora

All Legislative, Eskom and Majuba environmental policies are to be adhered to.

4.5. Work carried out in terms of:

The Contractor will be required to ensure that the Service is carried out as per the **ISO 14001** standard and **Majuba's Environmental Policy, BIA/ENV/04 and Waste management Policy, BIA/ENV/01**. The following environmental requirements are complied with at all times:

- a) Zero liquid effluent discharge.
- b) No chemicals will be dumped into the station drains or on the premises.
- c) No oil or waste will be dumped in an unauthorised area or unlicensed waste site.
- d) Asbestos will be handled and stored according to Act 15 of 1973 (Hazardous Substances Act).
- e) No materials or waste will be burnt on site. Hazardous substances shall be handled and stored according to the hazardous substances Act no 15 of 1973. No effluent shall be discharged into the public streams.

- f) Contractors' activities/ services shall be carried out as per the above procedures and QM58

4.6. Records of *Contractor's* Equipment

The *Contractor* will bring a typed list of all his equipment and tools (with serial numbers, wherever possible). This list needs to be approved by the Security office before the items are taken onto site on each occasion. Equipment that is not listed on a tool/equipment list cannot be removed from site. Equipment and vehicles left on site is done so at the *Contractor's* own risk.

4.7. Equipment provided by the Employer

- a) Overhead cranes
- b) The Employer is entitled to withdraw use of the said Equipment, should proper care not be ensured.

4.8. Site services and facilities

4.8.1. Provided by the Employer

Sanitary services, water, compressed air and electricity shall be provided by Eskom at fixed points on the plant. There is also a site kitchen which serves lunch only and meal tickets may be purchased at the Petty Cash Office in the Finance Building. Furthermore there is also a tuck-shop on site but both of these operate only on week days and are for the *Contractor's* own cost.

4.8.2. Contractor's yard

The *Contractor* is to establish a Site yard in the location indicated by the *Employer*. Permission will be granted once the *Contractor* provides an accepted layout plan. Expected site yard size 40 by 40 meters.

The *Contractor* will be responsible for supplying all the required buildings including separate venues for eating ablution and office work.

The *Contractor* will ensure that all the required services are connected and that the relevant building codes and by laws are adhered to.

Site Establishment will only be assessed for payment once a Certificate of Compliance issued by a duly Authorised person is provided to the *Service Manager*.

4.8.3. Provided by the Contractor

The *Contractor* is to supply all the personal protective equipment, transport, accommodation, tools, special tools, equipment and consumables to perform all the required tasks on site.

4.9. Control of noise, dust, water and waste

4.9.1. Waste Disposal

Waste is to be disposed of in bins supplied by Eskom – yellow bins for general waste and red bins for hazardous waste.

4.9.2. Noise

Noisy equipment and tools emitting noise more than 105dB (A) may not be supplied/utilised by the supplier.

4.10. Tests and inspections

4.10.1. Description of tests and inspections

It's the requirement that the Contractor do all tests and Inspections as per Service Information.

4.10.2. Materials facilities and samples for tests and inspections

As per Service Information

5. List of drawings

5.1. Drawings issued by the Employer

Drawings will be issued by the *Employer* where necessary to execute the scope.

6. Relevant Documents

The following Employer documents are relevant for this contract.

1	QM-58	Supplier Contract Quality Requirements
2	RSR0001	Safety, Health and Environment Requirements for <i>Contractors</i> at Majuba P/S
3	32-727	Safety, Health, Environmental and Quality Policy
4	37(2)	SHE Agreement
5	OPR 3305 (rev 3)	Eskom plant safety regulation
6	RER 0221	Environmental Management System: Waste Management Procedure
7	OPS 3450/17-2	Standard Specification for Quality Assurance, Quality Control and Inspection Requirement
8	RER 0207	Environmental Management System Manual
9	RER 0093	Environmental Management System: Competency, Training & Awareness

10	RER 0221	Environmental Management System: Waste Management Procedure
11	OPS 3450/17-2	Standard Specification for Quality Assurance, Quality Control and Inspection Requirement
12	RER 0207	Environmental Management System Manual
13	RER 0223	Oil Spillage Response Procedure
14	RER 0093	Environmental Management System: Competence, Training & Awareness
15	32-727	SHEQ Policy
16	32-1034	Eskom procurement and supply management procedure
17	23-726	SHE requirements for Eskom commercial process
18	32-136	Contractor Health and Safety Requirements
19	32-296	Integrated SHE organisation, roles and responsibilities and statutory appointments
20	240-62196227	LIFE-SAVING RULES
21	32-418	Working at Heights
22	SANS 10141	South African National Standard (Part 1)
23	SANS 10142	South African National Standard (Part 2)

Title	Revision or date	Tick if publicly available
Occupation, Health and Safety	Act no 85 of 1993	√
Site Regulations of Majuba Power Station		√
Safety, Health and Environmental Requirements to be	QM58	√

met by *Consultant*

Occurrence Management Procedure	36-220 Rev 0	√
Cardinal Rules Directive	32-421	√
Management of Cardinal Rules Directive	BIAIMT2	√
Supplier Contract Quality Requirement Specification (QM58)	240-105658000	√

The *Contractor* complies with the Occupational Health and Safety Act, and all Safety procedures issued by the *Employer*. The *Contractor* must furthermore comply with the *Employer's* Safety, Health and Environmental requirements for *Contractors*, QM58, which is available from the Majuba Documentation Centre.

The *Contractor* provides all personal safety equipment.

ANNEXURE A

Low Service Damages

	Description	Employer's Requirement	Damages payable by Contractor
1	Approval of safety file	Approved before contractor starts to work	
2	Approval of Quality Management System	Approved before contractor starts to work	R500.00 per day without approved quality file.
3	Arrival on site for call-out	Within 24 hours of call-out.	R5000.00 per hour of delay or part thereof.
4	Non Attendance of meetings	Every listed meeting to be attended	R500.00 per incident.
5	Exceeding Task Duration	Within the time specified by Contractor's plan as approved By the Employers Representative.	R500.00 per hour of extended Duration or 10% of the monthly contract value whichever value is lower
6	Scheduled Compliance	More than 95%	1% of monthly contract value
7	PM compliance	More than 98%	1% of monthly contract value
8	P1 work order not closed within 24 hours	Less than 1 outstanding	R1000 for each one per month
9	P2 work order not closed within 48 hours	Less than 3 outstanding	R1000 for each one per month
10	Work order back log	No more than 60 outstanding	R100 for each outstanding
11	Major break downs not identified and actioned	All failure that put the plant or redundant plant at risk must be prevented	1% of monthly contract value
12	Planning information not submitted as required	Planning requirements to be met.	1% of monthly contract value
13	Failure to deliver the required spare	Spares to be always available	R1000 per incident
14	Incorrect spare delivered	Supplied spares to be according to the specification	R1000 per incident
15	Non-availability of staff to provide service	Service has to be given on a continuous basis on the commencement of a contract	5% of the total repair cost per occurrence.
16	3 x Defect notifications raised against Contractor within 6 weeks due to non-compliance of Service Contract (Non Conformance Report (NCR)) given 3 times in 6 weeks	Contractor to deliver the service as per the contract scope	5% of the total repair cost per occurrence.

ANNEXURE B

Supplier Development & Localisation

Supplier Development and Localisation, as a poverty alleviation and job creation initiative, has identified Government spending on infrastructure- such as Power Station construction- as a key area of intervention, and Eskom, as a State Owned Enterprise, is required to set Local Content,

black economic Empowerment (LBS, BWO and SBE) and Skills Development targets and minimums as key evaluation criteria in tenders/contracts it awards.

Criteria	Total Target (%)
Local Content to South Africa	100%

TABLE2: SKILLS DEVELOPMENT COMPLIANCE MATRIX	
Skill (Occupation)	Target Number of Persons to be Trained (Local to South Africa)
Technician	1
mi skilled worker	1

The above evaluation score card will be applied.

SD&L retention – 2%.

ANNEXURE C

Interpretation and terminology

Technician - a person who is trained or skilled in the technicalities of the job and whose job relates to the practical use of machines or science in industry, someone who has obtained a National Diploma or Degree and has mastered the basic techniques or skills of a job in the workplace..

Non-Conformance Report: A non-conformance report is a documents that give details of a non-conformance identified in a quality audit or other process review. The objective of the report is to make an unambiguous, defensible, clear and concise definition of the problem so that corrective action can and will be initiated by management