

PART 3: SCOPE OF WORK

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C3.1: *EMPLOYER'S SERVICE INFORMATION*

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1 Description of the service

1.1 Executive overview

The Service is for the refurbishment of fisher control valves on the Turbine plant at Majuba Power Station, which include inspecting, lapping and replacement of the damaged sub components of the valves.

1.2 Employer's requirements for the service

The Service is the refurbishment of fisher control valves on the Turbine plant at Majuba Power Station. The following to be performed for each valve

1.2.1 Preparation for work

1. Scope of work to be handed to contractor of valves to be refurbished
2. Valves to be tagged
3. Scaffold requirements to be submitted to the contract manager or identified representative
4. QCP's to be drafted and accepted before work start.
5. Lifting equipment to be certified and anchor points verified to be sufficient.

1.2.2 Open, Clean and Inspection of Valves

1. The inspection of all components
2. Inspect casing, valve body seat and spindle and seat for any wear or damage.
3. Clean all the components
4. The contract manager or identified representative will be notified as soon as wear or damage is recorded. The contract manager or identified representative will then notify the System Engineer and Quality Representative to conduct inspections.
5. The *Contractor* will replace spares damaged as result of poor workmanship or negligence.

1.2.3 Replacement of soft spares

- 1.
2. Replace Packing
3. Replace valve seals
4. Replace Gasket

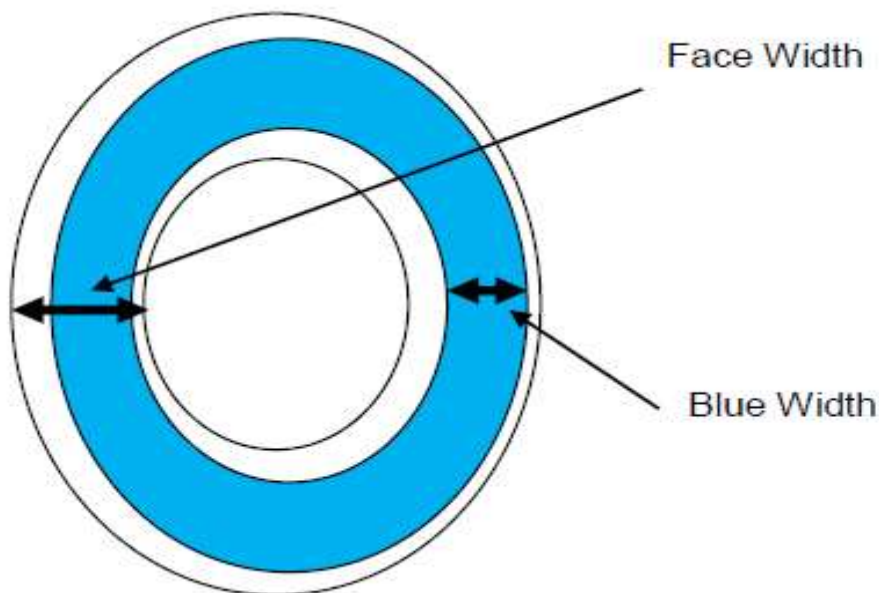
1.2.4 Repairs

1. Perform full refurbishment of the control valve as per the procedure to be provided
2. The spindle runout to be conducted and results to be recorded. Upon completion of spindle runout Engineer and QC to be called to verify the results
3. Refurbish New spindle if the runout results are showing damage or bended
4. Lubricate the spindle

1.2.5 Lapping and blueing

1. The *Contractor* to lap seats with appropriate lapping paste.
2. Blue test (using mechanical blue) achieve at least an 85% sealing surface (witnessed by QC and engineering)
3. Clean the spindle and body seat properly to remove all lapping compound. A form of a cleaning solution like alcohol may be used.
4. The procedure below will indicate how a control valve seat is blue checked.
 - Apply a very thin even layer of engineering blue to the spindle seat.
 - Lower the spindle seat to the body seat but ensure it does not touch the body seat until aligned.
 - Apply even pressure on the spindle seat and rotate the seat 90° without moving the seat up, down, left or right. Then rotate the seat back 90° to its original position.
 - Remove the spindle seat and inspect the seat for blue rub-off and blue transfer from the spindle seat to the body seat respectively.

- If the transfer to the body seat is more than 85% then the blue may be cleared off.
 - Clean the seats thoroughly by using a cleaning solution.
 - Apply a very thin even layer of engineering blue to the valve body seat.
 - Lower the clean spindle seats until it aligns with the body seat and then only allow the two seat faces to touch.
 - Apply an even pressure on the seat to ensure uniform blue results.
 - After this inspection the valve may be boxed up.
5. The acceptance criteria for the blue checks
- a. Lapping plate to surface table: =100%
6. The Blue % identification:
- a. Face Width
 - b. Blue Width



7. The Blue percentage can be determined by using the following formulae:
- $$\% \text{ Blue} = (\text{Blue Width}) / (\text{Face Width}) \times 100$$
- If there is an area where the seat does not blue in accordance with the acceptance criteria then the System Engineer must be contacted to make a final decision.

1.2.6 Re-assembly

1. The *Contractor* will be responsible for the re-assembly of the valve.
2. *Contractor* cleans the area of work.

1.2.7 Reports

Report should contain, however not limited to the following:

1. QCP per valve
2. Condition of valve
3. Spindle runout results
4. Components that were replaced
5. Record all components that need to be replaced
6. Recommendations for the next outage
7. Action taken to do repairs

1.2.8 Commissioning

The *Contractor* must be on site during the unit light up (estimated 2 days), in order for all valves to be inspected and attended to if the need arises. In the case whereby issues are identified and cannot be attended to then the defects will be raised, and the *Contractor* would be notified when an opportunity arises to correct the defect.

1.3 Quality Control Plans

1. The *Contractor* compiles Quality Control Documents and gets it approved by the Eskom System Engineer and the Majuba Quality department or Inspection Authority.
2. Each valve needs to have its own QCP, identified by its KKS number, with the activities to be performed.
3. The work does not commence unless the QCP's are approved by the System Engineer prior to commencement.
4. The works is not considered complete, if all hold points on these documents are not signed by all parties.
5. In the event that the hold and witness points are not adhered to, the *Contractor* performs the work again at the *Contractor's* own account.
6. If there is any weld repair to be done then the *Contractor* needs to ensure that a weld package is submitted to the relevant welding engineer that includes the WPS of the work to be done as well as the welder's qualification.

1.3.1 5-Year Outage Plan

The 5-year outage plan is documented in the table below. Due to rescheduling performed on a continuous basis, the plan might change from time-to-time. The latest updates can be obtained from the *Service Manager* when required.

Unit	Planned/Actual Start Time	Planned/Revised End Time	MW Loss	Outage Description	Planned Duration
1	2023/08/10 00:00:00	2023/09/06 23:59:00	606	IR	28,00
6	2023/12/08 00:00:00	2024/03/16 23:59:00	663	Mini GO and Boiler Scope	100,00
5	2023/12/21 00:00:00	2024/01/03 23:59:00	663	BTI	14,00
2	2024/04/01 00:00:00	2024/04/28 23:59:00	606	Interim repairs	28,00
3	2024/05/09 00:00:00	2024/09/05 23:59:00	606	GO and C&I Upgrade	120,00
6	2024/05/20 00:00:00	2024/06/02 23:59:00	663	BTI	14,00
4	2024/05/23 00:00:00	2024/06/19 23:59:00	663	Interim Repairs	28,00
1	2024/08/21 00:00:00	2024/09/03 23:59:00	606	Boiler inspection	14,00
5	2025/04/27 00:00:00	2025/05/24 23:59:00	663	IR	28,00
6	2025/07/31 00:00:00	2025/08/27 23:59:00	663	IR	28,00
2	2025/08/01 00:00:00	2025/08/14 23:59:00	606	BTI	14,00
1	2025/09/05 00:00:00	2026/01/02 23:59:00	606	GO	120,00
4	2026/02/10 00:00:00	2026/02/23 23:59:00	663	Boiler inspection	14,00
3	2026/03/07 00:00:00	2026/04/10 23:59:00	606	IR	35,00
2	2026/04/13 00:00:00	2026/05/17 23:59:00	606	IR & Hydro	35,00
2	2026/09/15 00:00:00	2027/01/12 23:59:00	606	GO	120,00
5	2026/11/23 00:00:00	2026/12/06 23:59:00	663	BTI	14,00
6	2027/02/26 00:00:00	2027/03/11 23:59:00	663	BTI	14,00
1	2027/07/04 00:00:00	2027/07/17 23:59:00	606	BTI	14,00
4	2027/08/24 00:00:00	2027/12/21 23:59:00	663	GO	120,00
3	2027/09/21 00:00:00	2027/10/04 23:59:00	606	BTI	14,00

1.4 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
BCEA	Basic Conditions of Employment Act
BYP	Bypass
CIOID	Compensation for occupational injuries and diseases
GO	General Overhaul
HP	High Pressure
HSSD	Half Station Shut Down
IN	Boiler Inspection
IR	Intermediate Repairs
LP	Low Pressure
MGO	Mini General Overhaul
NEC	New Engineering Contract
NDT	Non Destructive Testing
MS	Microsoft
P	Pressure
SOW	Scope of Work
SUPL	Supply
TBA	To be advised

2 Management strategy and start up

2.1 Flexibility with the start of outages

1. The outage start date is stated on the Task Order.
2. Movement to Outage dates can take place due to the country's demand for electricity.
3. Any movement to Outage dates is to be communicated in writing by the Contract *Manager* at least 48 Hours before outage start. Notification of change to the outage date must be communicated to the *Contractor* at least 48 Hours prior to the outage start date and will have no claims for compensation.
4. As soon as a new outage date is available, a new Task Order is to be issued to the *contractor* with the revised Outage start date.
5. The *Contractor* will be entitled to claim the actual accommodation, travel and staff expenses incurred if the *Contractor* receive notification of outage movement within 48 hours of the original start date as agreed upon in the latest Task Order revision

2.2 The *Contractor's* plan for the service

The *Contractor* is to deliver on the key outputs set out in the Scope of work. Deviations from hereon will render non-payment for services rendered. The duration for the termed Contract to execute services at Majuba Power Station is for the period 5 years.

The *Contractor* submits a program in MS Project / Primavera format (confirmation required upfront)

The program includes:

- a. Activities

- b. Durations in hours
- c. Predecessors
- d. Successors
- e. Total float
- f. No constraints (linking to be done properly)
- g. No resources
- h. No unnecessary calendars (remove all)
- i. No empty lines

Daily feedback on progress required for duration of each task order program.

The *Contractor* draws up a Quality Control Plan prior to commencement of the work, for approval by the *Employer*. The *Employer* and the *Contractor* agrees on hold and witness points.

The *Contractor* will need to arrange with the help of the site *Contract Manager* to do site induction two weeks prior to the outage start.

2.3 Management meetings

1. Regular meetings of a general nature may be convened and chaired by the *Contract Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	When need arises	Contract manager's Office/ Teams	<i>Employer, Contractor</i>
Progress and feedback	Daily at 08:00 (15 Min duration)	Office/ Teams	<i>Employer, Contractor and Supervisors</i>
Daily outage meeting	Daily at 10:30 (1Hour & 30 min duration)	Majuba Power Station, Production boardroom (U4 16m level/Teams)	Site Manager, System Engineer, Outage coordinator and Quality Inspectors
Safety meeting	Weekly on Wednesday at 14h00	Majuba Power Station, Production boardroom (U4 16m level/Teams)	Safety Officer
Post mortem meeting	At task order completion	Majuba Power Station, Specific conference room TBA/ Teams	Site Manager, System Engineer, Outage coordinator and Quality Inspectors
Scope clarification meetings	After scope freeze	Majuba Power Station, Specific conference room TBA/ Teams	Site Manager, System Engineer, Outage coordinator and Quality Inspectors
Outage Kick-off meeting	Week before outage	Majuba Power Station, Specific conference room TBA/ Teams	Site Manager, Outage coordinator
Assessment meeting	At end of each outage	Majuba Power Station, Specific conference room TBA/ Teams	Site Manager, Outage coordinator, <i>Service Manager</i>

2. Meetings of a specialist nature may be convened at times and locations to suit the Parties. Records of these meetings shall be submitted to the Contract *Manager* by the person convening the meeting within five days of the meeting.
3. All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for 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.
4. Any safety and / or technical issues need to be communicated within 24 hours to the *Employer / Contract Manager*.

2.4 Contractor's management, supervision and key people

The key persons are:

Key persons of Contractor				
Designation				
Name				
Experience				
Tel				

1. The Contractor's Site Manager ensures that only competent persons be allowed to work on plant. The Contract Manager is entitled to verify the qualifications of the Contractor.
2. The Contractor's supervisors must be knowledgeable about the conditions and scope of work contained in this contract and capable of executing the scope of work.
3. The Employer may, having stated reasons, instruct the Contractor to remove a key person. The Contractor then arranges that, after one day, the key person has no further connection with the work included in this contract.
4. The Contractor may not replace any of the key persons, without prior written request and approval thereof from the Employer.

2.5 Contractors terms and conditions of employment

1. The terms and conditions of employment of contractors must be made available to the Employer before any work may commence.
2. The contractor shall comply with all local and statutory labour laws (LRA, BCEA UIF etc) and agreements and shall promptly attend to any labour grievances that may arise. The Contractor shall not remunerate employees at 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.
3. The contract does not create any renewal expectations on either party as referred to in section 186"B" of the Labour Relations Act

2.6 Police clearance

1. All Contractor personnel to undertake Police clearance. Certificates to be provided to the Service Manager at least 2 weeks before commencement of work.
2. 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.
3. The following website can be used to guide the process.
http://www.saps.gov.za/services/applying_clearance_certificate.php

2.7 Supplier Development and Localisation Requirements

2.7.1 Recruitment of General Labour

1. The Contractor recruits 100% of all new recruits, of general labour from Dr Pixley Ka Seme Local Municipality, using the recruitment form provided by the department of labour. Contact details and application forms will be provided by the Service Manager on request
2. In an event that new recruits are not from the defined Dr Pixley Ka Seme Municipality, the Contractor needs to provide proof that the local municipality could not provide such individual.
3. The Contractor needs to update the Employer as well as the department of labour, in the event that there is a change in the staff compliment e.g. dismissal, resignation, etc.
4. The Contractor submits an updated monthly job statistics on the 1st day of each month, using the reporting template that is provided by the Service Manager.

2.7.2 Transporting of Staff

1. If the *Contractor* does not have his own transportation, the *Contractor* use transportation sourced from the Dr Pixley Ka Seme local taxi association. Contact details of the Chairpersons of the different associations will be provided by the *Service Manager* on request.

2.7.3 Small, Micro, Medium Enterprises

1. The *Contractor* supports local Small, Micro and Medium Enterprises by purchasing your material locally where such material is available

2.7.4 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

1. To provide a high level Supplier Development & Localisation implementation plan which stretches for the duration of the contract within one month after contract award.
2. To provide an explanation and action plan for deviation from the proposed plan.
3. 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.
4. 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.
5. The Candidates for Skills Development would be sourced from Dr Pixley Ka Seme first, then Mpumalanga, before the rest of RSA.
6. The candidates may be developed directly by the supplier, through the suppliers’ own supply network or through the SETA accredited training providers.
7. The *Contractor* submits proposals to the *Employer* for acceptance on how he will employ and train local labour in the following positions:
 - Refer to the matrix in the SDL requirements document

2.8 Management of work done by Task Order

1. Task Orders are issued per outage one month prior to the start of an outage
2. The Task Order includes the scope of work for the specific outage.
3. A Task Order is the instruction to commence work.
4. No work shall commence until a Task Order is issued and has been finalised and accepted and signed by both the *Employer* and *Contractor*.
5. All work will be issued on a Task Order system. The Work Order, Purchase Requisition and Purchase Order will be created via the SAP PM system.
6. Task Orders are issued for all activities. Assessment of work will be conducted after work completion. Signed off QCP to be provided for assessments to be compiled by the *Service Manager*

2.9 Contract change management

1. The *Contract Manager* issues a Task order to the *Contractor* to authorise the execution of work.
2. In the event where it is identified that there is additional work to be done outside the scope of work on the Task Order, the *Contractor* will give the *Contract Manager* an early warning with a written quotation.
3. If agreed, the *Service Manager* issues a revised Task Order or additional Task Order.
4. The *Contractor* starts the work on the starting date of the task order.
5. The Task Order is signed by both the *Contract Manager* and the *Contractor* before work commences.

2.10 Low Service Damages

1. The low service damages will be applicable if the performance of one or more valves cause a load loss, either partial or total. The following process and damages will apply:
 - a. The defect(s) will be reported to the *Contractor* as soon as the *Employer* becomes aware of the defect(s).
 - b. An opportunity will be arranged by the *Employer* for the repair and the *Contractor* will be notified at least 24 hours in advance of the opportunity to repair the defect(s).
 - c. If the inspection confirms that, the defect(s) is/are because of poor quality from the *Contractor's* work performed, 5 % damage as per annexure A of the total value of task orders raised for that outage per day will apply, until the defect(s) is/are resolved. The damages are capped at a maximum of 10% of the total of the task orders raised for that outage.
2. It is the *Contractor's* responsibility to keep the Safety file up-to-date (audited on a monthly basis for the duration of the contract) to cater for short notice call-outs for defects
3. Refer to Appendix A for additional Low Service damages

2.11 Documentation control

1. The *Contractors* safety file will be hand over to the Contract *Manager* after each outage
2. All NEC standard forms should be used ex. Task orders, Early Warnings, Defect certificates and Assessments.
3. The *Contractor* is responsible to plan the supply of the documentation during the various project stages and to provide the documentation in accordance with the *Contractor* Document Submission Schedule (CDSS). A document is thus any written or pictorial information describing, defining, specifying or certifying activities, requirements, procedures or results.
4. The *Contractor* submits all documentation on a formal transmittal form to the *Service Manager*.
5. All manuals, documents, drawings and engineering documentation shall be presented in British English in both software and hardware.
6. 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.
7. Safety files to be submitted and approved before maintenance and outage work commence as per client requirements, two weeks in advance.
8. Planned Outage Scope of work to be issued to *Contractor* from the client five months in advance.
9. Budget quotation for outage work to be submitted one week after SOW submission/SOW clarification.
10. Compensation for Occupational Injuries and Diseases (COID) Certificate and letter of good standing must be valid at all times and submitted to the *Service Manager* at each anniversary of the contract
11. Two hard copies of a detailed report is submitted to the Service Manger, which contains general info on the condition of the valves, inspection reports on the condition of equipment and all refurbished / replaced components. An Electronic copy of all reports to be provided on CD/ Flash disk

Contractor Document Submission Schedule (CDSS)

Document Name/Description	Date/Time documents to be submitted
A programme in MS Project or Primavera format as referred to document number (240-85065548)	One week after receipt of Task Order
Baseline risk assessment	One week after receipt of Task Order
QCP's	One week after receipt of Task Order
<i>Contractor's</i> Safety file	Two weeks before start of work
Inspection report	24 hours after stripping/inspection activity
Daily progress report	After Every Shift
Technical report and data pack	Within 7 days of completion of the services
Safety file Audit	Every 30 days after approval of initial file until work for specific outage is complete.

2.12 Invoicing and payment

1. In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:
 - Name and address of the Contractor
 - The contract number and title;
 - Contractor's VAT registration number;
 - The Employer's VAT registration number 4740101508;
 - The total Price for Work Done to Date which the Contractor has completed;
 - Other amounts to be paid to the Contractor;
 - Less amounts to be paid by or retained from the Contractor;
 - The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
 - (add other as required)
2. The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.
3. The invoices can be submitted using emails to invoiceseskomlocal@eskom.co.za
4. To facilitate payment, the *Contractor* must ensure the following:
 - Ensure that the Eskom order number is clearly indicated on your invoice together with the line number on the order you are billing for.
 - All Electronic invoices must be sent in PDF format only.
 - Each PDF file should contain one invoice; or one debit note; or one credit note only as Eskom's SAP System does not support more than one PDF being linked into workflow at a time.
 - Your E-mail may contain more than one PDF file (e.g. 2 invoices on 2 separate PDF files in one e-mail)
 - For Foreign invoices, suppliers will still be required to physically deliver hard copies of original documents to the respective documentation management centers even though you have e-mailed those invoices
 - A PDF file that was created directly from a System meets the definition of original document and is allowed (including saving documents from excel to PDF, word to PDF etc.)
 - An Invoice that was printed and then scanned to PDF by the Vendor is not acceptable as this is not an original tax invoice by SARS definition but a copy.
 - The following wording needs to appear on the invoice: "Your invoice is encrypted in order to comply with SARS requirements that invoices and statements sent electronically are tamperproof."
 - If there is Cost Price Adjustment (CPA) on your invoice, it is recommend that the Contractor 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.

- You do not require a goods receipt (GR) number to submit your invoices. When the GR number is received, you can then send the GR number to the FSS contact center at FSS@eskom.co.za or 011 800 5060.
 - All queries and follow up on invoice payments should be made by contacting the FSS Contact Centre: Tel: 011 800 5060
5. Payment will be made within 30 Days after receipt of an acceptable invoice at the address stated in the order and the acceptance of the goods by Eskom. Payments are made on Friday's only.
 6. If CPA is applicable, the contract manager and the *Contractor* must confirm the increase/decrease with the QS department BEFORE the revised prices are stated on the Invoice. The QS and Contract Manager must confirm the escalation with the Financial Department before it may be implemented.
 7. It is important that the value stated on the Invoice must be the same as the value stated on the order. If the Invoice value is different from the Order value payment of the invoice will be delayed. It is strongly recommended that if there are any discrepancies on the Invoice, it be rectified with the Buyer BEFORE it is submitted for payment.

3 General Works Information

3.1 The Contractor to note and comply with the following:

- The Employer reserves the right to have any of the Contractor's personnel removed off site without cancelling the contract if, in the Employer's opinion, it is warranted.
- The Employer reserves the right to request disciplinary/corrective action if, and when required.
- The main Contractor is accountable for the management of their sub-contractors and suppliers and to ensure that the applicable legal and Eskom requirements (applicable during contract execution) are complied with by the sub-contractors and suppliers (all tiers). If there are non-conformances / non-compliance to applicable legal and Eskom requirements identified, then the Main Service Provider/Principle contractor will be penalised.
- The Contractor shall operate under the direction and instructions of the Power Station Manager or such person/people as may be appointed by him if not in conflict with the Occupational Health and Safety Act and the Generation Plant and Safety Regulations.
- The Contractor shall maintain a high standard of workmanship expected by the Employer and shall comply with any quality assurance and quality procedures implemented by the Employer.
- The Contractor shall provide all overalls for his staff with clearly identifying motifs (Contractors Brand and name).
- The Contractor must provide the necessary supervision to ensure that activities are conducted safely. The Contractor makes an assessment of all other required PPE, and ensures that these are provided to all staff on site.

3.2 Health and Safety:

4.3.1. Plant Safety Regulations:

- 4.3.2. The Contractor requests Works Management to arrange the isolation of the plant from all sources of danger as described in the Plant Safety Regulations.
- 4.3.3. The Employer shall, on request, make available a copy of the latest revision of the Plant Safety Regulations to the Contractor.
- 4.3.4. The Contractor shall conform to all rules and regulations applicable to Plant Safety and shall complete the Workman's Register prior to working on the plant.

3.3 Fire Precautions:

- 4.4.1. Any tampering with the Employer's fire equipment is strictly forbidden.
- 4.4.2. 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.
- 4.4.3. In case of fire, report the location and extent of the fire to Electrical Operating Desk at x3804.
- 4.4.4. It is expected that the Contractor take the necessary action to safe guard the area in order to prevent injury and spreading of the fire.

3.4 Reporting of accidents:

The Employer follows an accident prevention policy which includes the investigation of all accidents 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. The Employer's Representative must be informed immediately of any Category B or C incidents. Category A incidents and any damage to property or equipment must be reported to the Project Manager/ Employer's Representative/ Employer's Agent within 24-hours.

NOTE: This report 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.

3.5 Speed limit:

All vehicles must be driven with due consideration for personnel and property. A maximum speed limit of 40 km per hour will be adhered to on the premises at all times.

3.6 Health and Safety Arrangements:

- a) The Contractor must ensure that all his personnel attend a Health and Safety Induction Course prior to starting with the works. A one- (1) hour course will be provided by the Employer and will be valid for the duration of one- (1) year.
- b) The Contractor shall comply with the guidelines set out in the Majuba Standard BIA/RM/STD/01 titled "Safety, Health and Environmental specifications to be met by Contractors"
- 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 Employer's Representative 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 and to enforce disciplinary action, and submit a report to the Employer's Representative. The Contractor shall implement additional health and safety precautions where necessary.
- e) The following Health & Safety requirements should be complied with:
The Contractor must supply a Certificate of Competency of his/her employees to work under the following conditions:

Confined Spaces
Heights
Heat stresses
Cold stresses

The Contractor to provide the Employer with proof of free issue of adequate Personal Protective Equipment (P.P.E.) to be used by his/her employees (preferably SABS approved).

All the Contractor's employees to receive a formal Safety Induction Training from Safety Risk Management before commencement of any work on site.

- Noisy equipment and tools - no equipment or tools > 105dB (A) may be supplied/utilised by the supplier.
- Sub-contractors - the principal contractor must state if a sub-contractor is going to be used and who the sub-contractor/s are. Proof must be given to Eskom that the sub-contractor/s has/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 examination processes must be complied with.
- Contractor safety file to be signed off by safety department and handed to Eskom at end of contract

3.7 Vehicle and driver safety

All drivers, passengers and pedestrians must obey vehicle safety requirements in terms of the National Road Traffic Act, Act No 93 of 1996, as amended, including other relevant provincial or local requirements.

Contractor vehicles are to comply with the requirements specified in the Eskom Vehicle Safety Specification 32-345.

Transportation of passengers: open LDV's:

With effect from 31 May 2006 no Eskom employee or Contractor would be allowed to transport passengers on the back of open light delivery vehicles (LDV's). It is a legal requirement to provide safe transportation of Eskom and Contractor employees – therefore the following will be enforced:

- Ensure that no employee, including contractor employees or any other person, when on an Eskom site and/or performing work for Eskom, is allowed to be transported in the back of open vehicles.
- There will be cases where this may not be reasonable or practicable, namely where vehicles are used during line inspections on sites or on private roads, or similar cases, and in these cases such vehicles must be driven at less than 30km per hour or at a speed suitable to the prevalent conditions. In such cases, the carrying of passengers in the back of such open vehicles could be explicitly allowed, after:
 - a risk assessment has been carried out, indicating a very low risk;
 - mitigating factors have been identified to control any risk identified;
 - proper seating and handrails have been provided on the back of the open vehicle;
 - these measures have been discussed at the relevant Health and Safety Committee Meeting and approved by the Employer.
 - is defined and contained in a formal written division's or BU's policy, including the appropriate mitigating factors;
 - such a policy has been communicated to all employees and contractors.

The above risk assessment findings/outcomes must be available at all times for audit purposes.

- Tools and equipment must be properly secured.
- Only authorised drivers may transport passengers.
- Proof must be submitted on request in terms of valid roadworthiness of the vehicle/s.
- The above must apply to on site and off site transportation of passengers.

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.

The driver must ensure that no employees are transported in the back of open vehicles unless it is allowed in terms of a divisional or BU-specific policy as referred to in paragraph f). This also applies to contractor and contractor employees when performing work for Eskom.

The driver must ensure that all canopies are being properly fitted and secured and that all loose tools and objects in vehicles are properly secured.

The driver must ensure that their passengers are seated and wear seatbelts at all times.

3.8 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 1 000 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 limitations exists, no person shall work without the required permit to work.

3.9 PLANT SAFETY REGULATIONS - APPOINTMENT OF A RESPONSIBLE PERSON, APPOINTED PERSON AND/OR AN AUTHORISED SUPERVISOR Rev 0 - May 2008

The OHS Act states that anyone entering Eskom's premises must adhere to their set of regulations, i.e. Plant Safety Regulations, as Eskom is responsible for the Contractors safety while they are on Eskom's sites.

It is required that all Contractors must appoint a Responsible Person or an Authorised Supervisor to supervise work done by the Contractor.

An Appointed Person can be appointed by the Contractor to do isolations if required.

3.9.1 Process to appoint a Responsible Person, Appointed Person and/or Authorised Supervisor

Where applicable, the Contractor will identify a person who will represent him as a RESPONSIBLE PERSON, APPOINTED PERSON and/or an AUTHORISED SUPERVISOR. The Contractor may send more than one person for training.

The appointed person/s will be trained by Eskom. There are two FORMAL sets of training, i.e. THEORETICAL TRAINING and PRACTICAL TRAINING.

3.9.2 Training

i) Practical training

The Contractor will send a representative for training to become a RESPONSIBLE PERSON / AURHORIZED SUPERVISOR to be instructed in the PRACTICAL aspects of the plant, Isolations, Plant Identification, Plant systems etc.

ii) Theoretical training

During his practical training period, the representative of the contractor must attend a theoretical course of 10 days for a Responsible Person and 2.5 days for an Authorised Supervisor. From the time that the person has written the EXAM for the theoretical test to the time that he must appear before the AUTHORISATION COMMITTEE is a maximum of three months.

If he does not appear before the Authorisation Committee during the three months, he must redo the theoretical exam.

The duration and cost for Practical and Theoretical training, as a package, will be determined by the Majuba Training Manager. For training arrangements, contact 017 799 3559.

3.9.3 Costs related to training

The Contractor will be responsible for all costs related to the training. The costs must be shown separately in the price list.

3.9.4 Accreditation and validity period and area

A certificate will be issued to the Responsible Person / Authorised Supervisor which will be valid for 2 years and it will only be applicable to Majuba Power Station.

If a person who is authorised moves from one contracting company to another, his/her authorisation automatically lapses.

3.10 Barricading / Screens and Scaffolding:

The Contractor shall provide and install barricades and warning devices to ensure that equipment and people are not exposed to danger or to prevent access to dangerous areas.

The Employer will supply scaffolding if not stated differently in the Works Information. Arrangements of such must be made at least one- (1) week in advance by the Contractor. (Tampering of any approved scaffold is not allowed for any adjustments – The Project Manager/ Employer's Representative/ Employer's Agent should be notified of any adjustments.)

3.11 Asbestos:

- a) All stripping of asbestos material shall be undertaken strictly in accordance with the Employer's Procedure OVP76 HSPHRN 00 00 5 and other relevant standards and updates, with special reference to the asbestos regulations according to the Occupational Health and Safety Act number 85 of 1993.
- b) The Project Manager/Employer's Representative shall advise the Contractor whether areas that are to be stripped of lagging have been identified as containing asbestos. If the Contractor is not sure whether lagging contains asbestos, he is to notify Risk Management who will identify whether the lagging contains asbestos.
- c) The Contractor shall be obliged to ascertain from the Employer's Representative in advance whether areas required to be stripped are non-asbestos. Only the Contractor appointed to remove asbestos, shall strip any lagging material containing asbestos fibre.

- d) The Contractor appointed to remove asbestos, may not begin removal without first obtaining the necessary permission from the Inspector of Labour and Risk Management.

4 Health and safety, the environment and quality assurance

4.1 Health and safety risk management

The *Contractor* complies with the health and safety requirements contained in the General Works Information.

4.2 Environmental constraints and management

The contractor will be required to ensure that all works/products/services are carried out as per the Majuba ISO 14001 environmental management system, Eskom's environmental Majuba power station environmental management requirements for contractors and suppliers specification (ENV/GEN/SPC/01) and the national environmental management act, its subordinate acts and all related regulations.

The following environmental requirements are complied with at all times:

1. Zero liquid effluent discharge.
2. No chemicals will be dumped into the station drains or on the premises.
3. No oil or waste will be dumped in an unauthorised area or unlicensed waste site.
4. Asbestos will be handled and stored according to act 15 of 1973 (hazardous substances act).
5. 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.

4.3 Quality assurance requirements

- Proof of the Contractor's personnel competency in terms of Reg 18 (5 and 6) of the OHS Act is required by the Employer.
- The Contractor will comply with the Employer's Quality Requirements as specified in **QM58 (240-105648000)**
- All quality control documentation must be submitted to the Project Manager/ Employer's Representative/ Employer's Agent within 15 days after contract award, but prior to the possession date.
- Quality requirements for Engineering and Construction Works a must be adhered to. This document is available from the Employer's Representative on request.
- The Contractor will comply with the Quality Requirements for the Procurement of Assets, Goods and Services as specified by Eskom.
- Original equipment manufacturer (OEM) manuals to be used for any clarification or information requirements

5 Procurement

5.1 Minimum requirements of people employed

1. All Semi-skilled personnel are in possession of valid grade 10 certificates or NQ4.
2. All Artisans are both qualified and in possession of a valid trade test certificate or in possession of a competency certificate issued by the OEM. 2 years minimum experience required.
3. All Supervisors are qualified and in possession of a valid diploma, and must have undergone supervisory training from a reputable institution. 2 years minimum experience required.
4. All project managers, site managers and project leaders must have undergone training in contracts management (e.g. NEC3), any technical discipline (e.g. construction, civil, mechanical, electrical, C&I), and managerial course (e.g. project management, etc.) from reputable institutions. 2 years minimum experience required.

5. The *Contractor* will provide trained personnel for the implementation of all work.
6. 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.

5.1.1 Responsible an appointed Supervisor

Contractor to have a Responsible person (RP) who will be responsible for permits when required. Contractor must also have an appointed supervisor on site when RP are off site for the day. It is compulsory that contractor send one or more persons for the Responsible course at Majuba for permits that needs to be issued to them

5.1.2 Key Competencies and Experience

5.1.2.1 Supervisors and/or Project Managers/Supervisors:

1. Capability to read and interpret drawings.
2. Ability to read and understand scopes of work.
3. Technically competent on the use Microsoft Packages (excel, outlook, Microsoft word). Proof of training required.
4. Knowledge of how to generate inspection/ refurbishment reports.
5. Maintain high standards despite pressing deadlines.
6. Demonstrates knowledge of actuator refurbishment, skills, equipment and procedures.
7. Is alert in a high-risk environment; follows detailed procedures and ensures accuracy in documentation and data
8. At least 2 years actuator refurbishment and Supervisory/Project management experience

5.1.2.2 Actuator technician

1. Ability to use/operate the required equipment/tools
2. Maintain high standards despite pressing deadlines.

5.1.2.3 Semi-Skilled

1. At least 1 year actuator refurbishment experience

5.2 Subcontracting

5.2.1 Preferred subcontractors

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

5.2.2 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.

5.2.3 Skills Development

The *Contractor* complies with the skills development requirements contained in the SDL requirements section.

5.3 Plant and Materials

5.3.1 Specifications

All materials used are as per the OEM specifications. It is the *Contractor's* responsibility to have the information available, if verifications need to be made.

5.3.2 Correction of defects

Refer to 2.10 Low Service Damages on page number 12

5.3.3 Plant & Materials provided "free issue" by the *Employer*

1. Scaffolding will be provided by the *Employer*.
2. Any equipment and / or plant related instruments that might obscure the work of the *Contractor* needs to be carefully removed with the help of the *Employer*, no equipment / instruments must be removed without the consent of the *Employer*.

5.3.4 *Contractor's* procurement of Plant and Materials

1. All soft spare kits are supplied by the *Contractor*.
2. All tools and equipment used to refurbish the plant are supplied by the *Contractor*.

6 Working on the Affected Property

6.1 *Employer's* site entry and security control, permits, and site regulations

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

1. The *Contractors* Safety file is to be approved by the *Employer's* Safety department.
2. All personnel must undergo screening for Criminal records and outstanding warrants
3. Site-specific induction is to be done by all personnel and needs to be arranged two weeks prior to the outage start.
4. Refer to the General Works information

6.1.1 Permits

1. The *Contractor* will ensure that he/she is informed of all the requirements of Eskom's Plant Safety Regulations and ORHVS and that he/she at all times comply to the requirements of these Regulations.
2. The *Contractor* provides Authorised Supervisor(s) in terms of the Plant Safety Regulations.
3. The *Contractor* trains enough staff to cover for leave periods as well as night shifts, if required. Training will be provided by Eskom Majuba Power Station and is done according to a schedule, thus arrangements need to be made with the *Service Manager* well in advance.
4. At least two supervisors should be authorised within 3 months of contract award.

6.2 People restrictions, hours of work, conduct and records

6.2.1 Time Clocking

1. The *Contractor* uses a biometric time clocking system.
2. No clocking will result in non-payment of hourly based, accommodation and travelling expenses.
3. If a person clocked in but not out or did not clock in, but clocked out, the person will not receive payment for that specific day.
4. Proof of clocking to be submitted to the *Employer* from files directly generated from the clocking system (no manual intervention)

6.2.2 Hours of work

1. Normal Eskom working hours are:

- a. Monday to Thursday **07:30 - 16:45**
- b. Fridays **07:30 - 12:30**
2. Outage working hours are :
 - a. Monday to Friday **07:00 - 19:00 or as required by the SOW**
 - b. Saturday to Sunday **07:00 – 19:00 or as required by the SOW**
3. Overtime rules are adhered to as determined by the Department of Manpower.
4. All Timesheets are to be kept for records purposes i.e. man-hours worked safely etc.
5. Other hours will be determined as per critical path activities during outages/breakdowns.
6. Daily time sheet must be kept up to date of normal and overtime worked at all times.
7. All overtime worked must comply with Eskom rest period requirements.

6.3 Records of *Contractor's* Equipment

1. The *Contractor* to declare all equipment and tools via a pre-set up list at the main entrance, where removal permit will be issued by Security personnel.
2. *Contractor* need to have a list of inventory of their equipment on site. Proof of site entrance needs to be provided before equipment can be removed from site.

6.4 Equipment provided by the *Employer*

1. Overhead cranes and Hoists are situated in certain areas in the plant and available should the *Contractor* require to use them.
2. The *Contractor* must ensure that any one of his employees or Sub-contractor, operating hoist equipment belonging to the *Employer*, is trained and authorised as per the appropriate Regulation and ACT (Occupation Health and Safety Act)
3. The *Employer* is entitled to withdraw use of the said Equipment, should proper care not be ensured.
4. The Borrowing of Tools and Equipment from other contractors is Discouraged. The contractor is responsible for ensuring that they have sufficient tools and equipment required to execute the Scope.
5. The *Contractor* is responsible for the repair, replacement or correction as necessary of all pieces of tools and equipment supplied by the *Employer* which are damaged and/or lost whilst in the *Contractor's* custody and control.

6.5 Plant Identification Labels

The *Contractor* is responsible to replace or repair all plant identification labels that are removed or damaged during the execution of the works.

6.6 Waste Disposal

All waste introduced to and/or produced on the employer's premises by the contractor for this contract, must be handled in accordance with the Majuba power station waste management work instruction ENV/GEN/WI/12 and the national environmental management: waste act as amended, including its regulations.

6.7 Site services and facilities

6.7.1 Provided by the *Employer*

1. Toilets at the four corners of the power station
2. Power points where available, own cables to be routed
3. Water points, where available
4. Compressed air (Service air), where available
5. NDT services, to be pre-arranged with the *Service Manager*
6. Site establishment area.
7. Scaffolding.

6.7.2 Provided by the *Contractor*

1. Containers, for dressing rooms, office and dining
2. Tools, equipment and consumables
3. Portable 380V electrical distribution boards, and supply cables to and from the boards for all his power supply requirements to execute the services.
 - a. *Contractors'* Electrical Distribution Boards complies with OHSA as referred to in the Electrical Installation Regulations and the Electrical Machinery Regulations. Each board brought on site has a certificate of compliance issued by an accredited person.
 - b. The *Contractors'* Electrical Distribution Boards must be installed at a time negotiated with the Electrical Maintenance Manager, or prior to the possession date. Distribution boards will be connected to a 380V three phase AC power supply by the *Employer*, only after the *Contractor* has submitted the valid certificate of compliance.
 - c. All *Contractors'* Electrical Distribution Boards are earthed to the steel structure of the plant.
4. Accommodation
5. Transport
6. Office furniture, equipment and stationary
7. Meals. The *Contractor* or any of his employees or subcontractors may buy take away meals from the fast food outlet on site, if available.
8. Telecommunications
9. Everything else necessary for providing the Service.

7 List of drawings

7.1 Drawings issued by the *Employer*

The list of drawings will be confirmed upon Contract Award

8 List of actuator

The final actuator list will be confirmed upon Contract Award.

Annexure A: Table of low service damages (X17)

Low Service Damage Description	Value of Low Service Damages	Limit of Low Service Damage
Service delaying the Outage Critical Path agreed schedule (Delaying other <i>Contractor(s)</i> from starting/completing their work)	0.5% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Service delays not finishing as per agreed upon project plan submitted and approved by the <i>Service Manager</i>	0.5% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Submission of documents not as per agreed upon Contract Document Submittal Schedule in this service agreement	0.25% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Non-response of NCR within 3 days	0.25% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Handover of completed data books per outage within 7 days from outage completion.	0.25% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Personnel not adequately qualified as per 4 Procurement	0.25% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage
Defect(s) is/are because of poor quality from the <i>Contractor's</i> work performed as per paragraph 2.9	0.5% per total value of the Task orders for the outage per day	Limited to 10% of the total value of the Task Order(s) for the outage

