

## Part 3: Scope of work

Document reference	Title	
	Milling plant maintenance services	
	This cover page	
C3.1	<i>Employer's</i> service information	
C3.2	Contractor's service information	

## C3.1: Employer's service information

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# 1 Description of the service

## 1.1 Executive overview

The objective is for the Contractor to provide comprehensive maintenance services that includes not limited to welding, boiler making, Rigging, Alignment (inclusive of geometric assessments and corrections of drivetrain bases, balancing and alignment of seal air fans), refurbishments, turning/replacement of girth gears, tiling of mill feeder bodies, fitting and turning, housekeeping at Majuba power station milling plant. The delivery of these services includes milling plant consumables. The supplier must provide their own tools in every respect (normal and special tools, high pressure that is suitable to remove oil or grease residues on machineries/oil tanks), scaffolding and cranes to be provided by Employer (forklift to be provided from the service provider). The duration of the contract will be five years.

### Contractor

The Contractor is able to perform planned, corrective, preventative, opportunity and standard mill-service maintenance work.

During unit outages such as: Inspections (IN) -14 days, Interim repairs (IR) - 28 days, General overhaul (GO) - 60 to 70 days (the contractor is expected to **use this as opportunity maintenance**) and the contractor must indicate the programme of maximising such opportunities.

Each unit operates on full load with four (4) mills. The milling plant on each unit has a redundancy by virtue of the existing fifth mill arrangement. This allows the contractor to carry out the compulsory standard mills services. With 6 units on load for a full year, the station will require 24 minor services annually and 24 major services every 3 years. The standard mill minor services is divided into 7500 running hours (duration to execute the scope should not exceed 14 calendar days), 22 500 hours for major service (including screw conveyor change service with duration to execute the scope not exceeding 30 calendar days) and 60 000 hours for shell liner replacement service, wind box liners are inspected at all services and replaced depending on inspection outcomes.

### Contractor

The Contractor is able to provide a base crew for preventative and corrective maintenance, based on site. A strategic arrangement will include a fulltime night shift crew. Preventative & corrective maintenance involves job cards that will be printed, filled and submitted daily after work is complete (this is inclusive of daily plant check sheets). A separate crew is required for each unit for execution of the mill minor and major services.

The Contractor has an effective quality management system in place and ISO 9001 approved. Furthermore, all activities will be done as per to the level of quality management stipulated therein, also taking into account input from Majuba engineering department, risk assurance department, quality department and management.

The Contractor provides qualified and competent teams with all the necessary equipment to provide the agreed upon service, whilst spares will be supplied by the *Employer*. Qualified, competent and experienced supervisors and site manager must supervise the Contractor's teams. The minimum formal education qualification requirement is N6 Technical/engineering diploma for both supervisor and site manager.

The Contractor has identified a representative as a key person, approved by the *Employer* on site during working hours and when otherwise required. This site representative will report to and liaise with the *service manager* or Eskom supervisor to co-ordinate all activities. The site representative must be a qualified and experienced site manager as stated above. Overtime payment is not applicable to managers. However, time off can be prearranged with the service manager.

The Contractor performs all planning and scheduling associated with the plant in line with the *Eskom* works management process.

The Contractor follows up on the availability of spares through the stores and planning sections. The Contractor notifies the Eskom plant supervisor and or service manager if any spares related risks arises three months prior to use or installation of such spares. Late notification of spares unavailability will remain the responsibility of the Contractor to execute the job on time. Spillages occurred during work activity will be the responsibility of the Contractor to clear out. The mills are very sensitive to industrial fires; hence housekeeping and cleanliness is vital at all times. Running with pf leaks causes unclean conditions and the Contractor may be legally implicated for violating FFFR by running mills with pf leaks. The Employer will provide the Contractor with mill running hours data as soon as possible after contract award to allow the Contractor to plan their maintenance schedule according to the employers requirements.

The Contractor is subject to low performance penalties as indicated in the service level table in sub section 5 below.

The contractor is expected to provide the service at all times, in spite of any industrial action by its employees. The contractor is also to ensure that the industrial action does not disrupt any other activities on site.

The Contractor establishes his own yard with all the relevant facilities on the site indicated by the *Employer*. The Contractor's responsibility is to keep the plant running with a minimum of four mills per unit at all times and the fifth mill on standby unless it is on a planned mill service with return to service date (which falls within the duration of the minor and major service). The Contractor is competent to help *Eskom* maintain mill availability and reliability. The Contractor will be penalised for unreliability of any mill (whether running or standby) and failing to return mills by committed return dates and times (irrespective of type of intervention i.e. breakdown, service, planned maintenance).

## 1.2 Abbreviations

Abbreviation	Meaning given to the abbreviation
RBO	Reliability based optimisation
NEC	New engineering contract
FPG	Functional plant group
PSR	Plant safety regulations
SOW	Scope of work
SAP	System application product
OEM	Original equipment manufacturer
INO	Initial notification of occurrence
KPI	Key performance indicators
KPA	Key performance area
ME	Unit 1-3 operating system
XP	Unit 4-6 operating system
KKS	Equipment/plant/component identification code
FFFR	Fossil fuel fired regulations
IN	Inspection outage

IR	Interim repair outage
GO	General overhaul outage
MPI	Magnetic particle inspection
NDT	Non-destructive testing
PF	Pulverised fuel
QCP	Quality control procedure

### 1.3 *Employer's requirements for the service*

#### 1.3.1 **Extent of the scope**

Perform maintenance on the milling plant in a safe, efficient and effective manner as per *Eskom* standards, specified KPA's & KPI's. The services are for milling plant maintenance, consisting of mechanical work including but not limited to welding, boiler making, Rigging, Alignment (inclusive of geometric assessments and correction of drivetrain bases, balancing and alignment of seal air fans), refurbishments, turning/replacement of girth gears, tiling of mill feeder bodies, fitting and turning, housekeeping at Majuba power station milling plant. This is applicable to units 1 to 3 at Majuba Power Station. The maintenance scope consists of planned maintenance, opportunity maintenance, preventative and corrective maintenance. Routine mill service as per the running hours is the most fundamental to mill reliability and availability and adherence is vital.

The milling plant load loss is not wanted or expected because there are five mills as per design but the units only needs 4 mills at any moment to perform on full load or maximum continuous rating (MCR). The contractor shall see to it that the four running mills are reliable while the fifth mill is either on standby or on planned work or standard mill service. Failure to this will result into penalties or contract termination.

#### 1.3.2 **Boundaries**

The boundaries of the milling plant where includes but not limited to the following:

<b>KKS</b>	<b>System/component</b>
HFA	Mill bunkers
-	Bunker air cannon system
HFB	Coal feed system
HFC:	Pulverising system including classifiers, mill entire drive train and ball loading station, mill ball loading bay or storage
HFE	Mill air system
HFW	Seal air system
HHA	Main burner pipes
HHE	Pulverised coal conveying and distribution
HHL	Secondary air up to and including the burners
PGB	Cooling water supply to mills (mill related only)
-	Mobile oil purifiers services and repairs

The Contractor will provide services for maintenance, repairs, fabrication, alignment, test running, mechanical stroking, drive machinery installations and alignment, non-project modification implementations, commissioning, investigations and clarification of problem areas, review of planned maintenance programs, specialised fault finding, re-commissioning and return of units to service from outage, cold reserve or two shifting.

Do all planned maintenance according to the *Employer's* RBO strategy namely: Eng./gen/stg/13, (latest version or any document or system replacing it). Corrective maintenance according to defect notifications process provided by the *Employer*.

The Contractor may not be held responsible for Employer's Other Contractor where there is no contractual relationship that exists to enforce any instructions.

Mill scheduled services will be done according to the intervals stipulated below:

Outage description	Frequency/interval	Scope	Duration
Minor mill planned service	Yearly or 7 500 hours	As per sections 8.6, 8.7, 8.8 of eng/gen/stg/13 or update versions/ system	14 days
Major (screw conveyor) mill outage	3-yearly or 22 500 hours	As per sections 8.6, 8.7, 8.8, 8.12 of eng/gen/stg/13 or updated versions/ system	30 Days
Shell liner replacement	60 000 running hours	As per sections 8.6, 8.7, 8.8, 8.12 of eng/gen/stg/13 or updated versions/ system	14 days

Majuba power station has 30 mills divided by six units, which equates to five mills per boiler. To keep up with the mill services in accordance to the running hours, between one and two mills must undergo a scheduled mill service monthly across the 3 units.

Occurrence of plant breakdown shall not interfere with scheduled mill service. However, mills on breakdown shall be brought back timeously to prevent load losses.

Deadline performance shall be monitored and penalties applied as per the service level table in sub-section 5.

Where access is required to perform maintenance work the Contractor shall endeavour to work with the Employers other Contractors and request access within a reasonable period to allow the Employers Contractors enough time to provide such service, e.g. removal and reinstating of lagging-cladding/sheeting, erection or dismantle of scaffolding. The Contractor must arrange with Majuba operating before topping up of oil/ greasing, house-keeping, and machinery cleaning. Observe the signing of LAR (limited access register)

High standards of mechanical fitting practice are compulsory as the applicable plant is of level one nature and poses high risks of plant explosions. No bolt cutting from any plant without prior approval from *Eskom supervisor/Technician*. All bolts removed in all plants must be contained and soaked in dedicated containers provided for by the Contractor.

#### Structure, welding and boiler making

The Contractor will ensure:

- All structural bolts, fasteners, shimming etc. are in place and are fastened tightly according to the torque specifications for the size of the respective bolt.
- The manufacturing, turning, welding and fitting of brackets and other simple fittings.
- Replacement and maintenance of holding down bolts, anchor points and grouting.

- Reporting of defective or missing floor grating to Majuba's civil department.
- Reporting of defective or failing hand railings (if removed by the Contractor for work purposes then it must be replaced by the Contractor).
- Report defective duct and pipe hangers on allocated plant.

Where structural work requires shifting for access, the Contractor will perform this in accordance with an approved procedure provided by the Contractor.

The Contractor implements modifications, installations and commissioning where:

- Plant is obsolete as defined by the engineer and replacement items are supplied (non-project work)
- The modification is approved by Eskom the work is for trials and none project nature
- Emergency modification is applicable, which does not require specialised methods and tools outside the normal routine maintenance.

1.3.2.1.1 The following minimum plant safety regulation (PSR) requirements is binding

- All employees shall be authorised on FFR
- All skilled personnel to be PSR authorised to accept mechanical permits.
- Semi-skilled personnel to be PSR authorised as an authorised supervisor(AS)
- All supervisors to be PSR authorised
- Other low skilled personnel may also be authorised as authorised supervisor (AS)
- Site manager authorisation (*only recommended but not binding*)

Mechanical specific work includes but is not limited to the following:

- Execute all daily/weekly scheduled preventative maintenance (PM) and all other scheduled intervals as per maintenance strategy.
- Daily/weekly plant walk downs in order to raise defects on FLIP/SAP system. Upon completion of the walk downs, the check sheets must be timeously submitted to the Eskom Supervisors and Engineers.
- Refurbishments/Services.
- Greasing of all bearings.
- Change of all filters associated with the milling plant as per maintenance strategy.
- Repair and service of ball loading station/bay.
- Thickness testing (minimum scope during breakdowns). Welders, boiler-makers or welding inspector must be trained to do this minimum scope.
- MPI & dye-penetration NDT (minimum scope) including dressing of components when required. The welding inspector is a level two and trained to do MPI and dye-pen NDT (can be trained while started with the job already)
- Visual inspections.
- Oil purification on trunnion lubrication system & other sensitive machines.
- Purifier repairs.
- Statutory pressure testing to all applicable equipment within milling plant.
- Geometric assessments and correction of drivetrain bases.
- Girth gear rotation, replacement, alignment and cleaning.
- Girth gear pinion cleaning, replacement and alignment.
- Girth gear pinion; main gearbox, barring gearbox monitoring; and all other couplings fitting.
- Accompanying field service engineer for girth gear replacements/rotation which includes inspections, installation, fault finding & alignment.
- Main and auxiliary gearboxes replacement and alignment.
- Main and auxiliary gearbox stripping and inspections at Eskom workshop.
- Main and auxiliary gearbox bearing and seals replacements, plus other serviceable components.
- Any gearbox complete overhaul provided all service parts issued. Contractor must generate an approved procedure and QCP to perform this task.

- Inspect gearbox oil levels and resolve issues with gearboxes running with out-of-range temperatures.
- Service all lubrication pumps on gearboxes, main motors and trunnion system.
- Main and auxiliary motor replacement and alignment and all other bearing services.
- Coupling replacement and alignment ensuring sound engineering practices are followed.
- Alignment of main drive train and all other mill components.
- Supplier shall arrange for and pay third party to quality check alignment on one mill per unit annually.
- Eskom may organise the third party to re-do alignment after the contractor's alignment. If the third party proves that the alignment was wrong then the resident contractor will pay for the cost, if correct Eskom will pay the cost.
- If the contractor struggles with installations and alignments of drive machines such as girth gears and other trains for longer than standard duration, Eskom will temporarily hire an external company to take over the work and cost deducted from the principal contractor. Failure to align resulting in component damage and or production loss will have penalties associated.
- Screw conveyor alignment and replacement.
- Trunnion tubes replacement.
- Trunnion bearings and associated components service and replacement. If the contractor struggles with service and replacement of trunnion bearings for longer than standard duration, Eskom will temporarily hire an external company to take over the work and cost deducted from the principal contractor.
- Wind box liner replacement.
- Non-project mill drum shell liner replacement.
- Repair and replacement of wear compound lining.
- Minimum scope lining tiles replacement or repairs.
- Clearing of classifier, reject chute, pf pipes, raw coal chutes, hot air boxes, seal air boxes and all other mill blockages.
- Repairs on raw coal chute, classifier inner cone, feeder body and ball loading chute.
- Broader repairs on classifiers and associated components, t-pieces, isolating gates, cones, cylinders etc.
- Opening and closing of all existing manholes or covers in the milling plant.
- Ensuring that all door seals are intact and doors are locked properly.
- Rigging including slinging of large duct and piping sections.
- PF leak repairs on pipes, ducts, flanges, feeder gates, coal bunkers, mill feeders, burners, ball loading chutes and all other sources of pf leaks.
- Coal feeder refurbishments and repairs including tiling.
- Coal bunker repairs for non-civil structural projects.
- Repairs to coal bunkers, air cannons and all associated components.
- Bottom bunker and bottom feeder gates service, repairs and replacements.
- Service, repairs, bearing replacements and damper-unit replacements to all existing dampers in the milling plant.
- Repairs and replacement, balancing and alignments on seal air fans.
- Complete girth gear and associated drive train repairs and alignment.
- Repair and replacement of mill lubrication components.
- Repair and replacement of duct and pipe hangers (non-project and non-outage)
- PF bend and t-piece replacement and repairs (non-outage)
- Repairs, machining, fabrication and refurbishment of components or equipment at *Eskom* dedicated workshop.
- All mechanical, welding and rigging type of scope within the milling plant is automatically included in this contract, implying complete control or responsibility of the plant.
- Servicing of hydraulic pack on the quick close damper.
- Maintaining both ball loading bays to ensure full availability.

- Compliance to all Eskom welding requirements unless official concession is granted.

### 1.3.2.13 General scope of work

- Project management of mill service
- Non-project related modification implementation
- Fault finding, testing and inspections
- Structured plant walk-downs and usage of check sheets
- Record keeping, reporting, archiving and filing of all maintenance and outage activities
- RBI
- Management and safe record keeping of all mills and associated equipment running hours
- Historical maintenance management of all refurbished items based on running hours or service intervals
- Liaising with outage management for planning and reporting of any maintenance activities undertaken during unit outages
- Conduct incident investigations on allocated plant with root cause analysis reports after incidents
- Perform condition monitoring on mills and analyse UCLF and availability on a weekly basis
- Obligated to meet but not exceed station given target on milling plant UCLF and EAF.
- Planning of work on SAP for T-0, T-1, T-3, T-4 T-5, T-7, T-10 and more.
- Detailed planning with durations and completion targets on all mill outages, general service or breakdown projects.
- Existing work programmes to be updated frequently till the end of task.
- Adherence to complete work packages at all times, no work should be conducted without approved procedures and approved QCP's, this will be applicable to all jobs regardless of magnitude.
- Contractor to invite all required stakeholders to perform QC intervention without any delays ( the contractor QC personnel must be very active and leading on this role)
- Recording of defects and potential failures on SAP.
- All jobs performed to be recorded as maintenance history on SAP.
- No job cards are to be signed just for the sake of completing paper work, all job cards shall be treated as part of core care of the plant. If found guilty of signing off paperwork without work being done, penalties will be associated with such actions.
- Cleaning of dust and/or debris for work access. Where additional assistance is required to clean, the appointed cleaning contractor will be actioned. However, the contractor must be in possession of their own high pressure cleaning equipment (air and water) to clean major mill components viz. main motor, gearbox, drivetrain bases, trunnion tanks (internal and external), trunnion sumps, feeders and all other relevant mill components.
- Drop mill balls and separate between coal and steel balls where required using an electro magnet or other time effective method (request compensation from Eskom for hiring of the magnet where required)
- Continuous housekeeping i.e. clean grease, coal and oil spillages caused by work activities, in other words clean your own littering.
- Cover plant to prevent contamination where applicable.
- Use procedure for raw coal chute hangup dropping when required.
- Co<sup>2</sup> piping on the mill must be serviced to ensure availability as and when required.

### 1.3.3 Base crew composition/Structure (Estimated), Skills, Experience

Designation	Min Academic Qualification	Min Level of Experience	Accreditation	Patterson band level	Minimum Manpower
Site manager	N6	5 years	Trade test	M14 to M16	1
Scheduler	N3	3 years	Trade Test	T09	1

Store man	N3/Metric	Preferably 3years	None	T06	1
Mechanical supervisor	N6	3 years	Trade Test	T13	2
Welding supervisor	N6	3 years	Trade Test	T13	1
Mechanical Foremen	Matric	10 years	None	T10	3
Welding inspector	Level 2	2 years	Trade Test	T11	1
Mechanical QC	N3	3 years	Trade Test	T09	1
Rigger	N3	2 years	Trade Test	T09	2
Tackler	Matric	2 years		T06	2
Fitting & turning	N3	2 years	Trade Test	T09	1
Mechanical fitters	N3	2years	Trade Test	T09	9
Welders	N3	2 years, coded	Trade Test	T09	9
Boiler makers	N3	2 years , coded	Trade Test	T09	9
Semi-skilled	Grade10	2years	None	T06	16
Assistants	Grade 10	None	None	T05	5
Safety officer	Safety management diploma	2 years	Safety Professional body	T11	1
Admin				T06	1
<b>Total manpower for maintenance (inclusive of service crew)</b>					<b>66</b>

#### 1.3.4 Recommended allocation of base crew

Preventative/Opportunity Maintenance (1 welder, 1 boilermaker, 1 mechanical fitter, 2 semi-skilled)

Corrective Maintenance (day and night shift) (2 mechanical foremen, 2 welders, 2 boilermakers, 2 mechanical fitters , 4 semi-skilled)

Mill service minor and major (1 mechanical foremen, 1 welding supervisor)

Mill service minor (2 welders, 2 boilermakers, 2 mechanical fitters , 4 semi-skilled, 2 assistants)

Mill service major (4 welders, 4 boilermakers, 4 mechanical fitters , 6 semi-skilled, 3 assistants)

Rigging across the units (2 riggers, 2 tacklers)

Workshop and Plant (1 fitter and turner)

Management and admin team (1 site manager, 1 scheduler, 2 QCs, 2 Mechanical supervisors, safety officer, store man, admin)

#### 1.3.5 Maintenance and plant excluded from the scope of work

- All fire protection systems
  - The Contractor is required to notify fire maintenance and engineering on work done in areas where fire systems are installed so that measures can be taken to reduce damage.
- Plant hoists, cranes and load beams
  - Hoists, crawls and cranes installed in the plant that are required for plant maintenance work are to be requested through the plant supervisor in writing at least 2 weeks before the time of use
- Air conditioning and ventilation systems for buildings

#### 1.3.6 Maintenance philosophy

##### 1.3.6.1 Running maintenance

Running maintenance inspections includes daily plant walk downs by the Contractor. During these walk downs qualified and experienced artisan does inspections while the plant is in operation. All defects or potential failures recorded on SAP as a basis for planning and historical data capturing.

The defects loaded and corrective actions planned according to the priority of the defects. The detailed planning of critical/major activities, together with, standard maintenance packages (SMP) including QCP's and risk assessments will be done by the Contractor and approved by the *service manager*. Where permits to work (PTW) are required, production manager to be involved.

#### 1.3.6.2 Planned maintenance

Planned maintenance schedules initiated by the *Employer* will be followed to prevent any potential breakdowns or failures of equipment. *Appendix Ai* contains a sample service plan and *Appendix Aii* contains a list of maintenance planned tasks currently in the SAP system.

#### 1.3.6.3 Corrective and breakdown maintenance

All unpreventable and unforeseen plant failure occurrences, replacement of damaged plant and equipment are included.

The authority for determining the criticality of work rests with the production managers. Repairs to plants experiencing breakdowns are to start as soon as the plant is ready for access. Where safety has been declared green, work can continue until the plant is placed back in operation on a 24 hour cycle. This is only changed if discussed with *Eskom* authorities that a single day shift is sufficient for work. Except for safety reasons the service manager's permission is required to postpone breakdown work.

Where a component or plant breakdown occurs, the Contractor shall immediately attend to it as soon as he has been made aware of it by the condition monitoring personnel. Eskom to issue the permit immediately when requested.

#### 1.3.6.4 Condition based maintenance / monitoring

The purpose of condition based maintenance is to enable the monitoring of the performance, physical condition and potential failure modes of equipment. Majuba's engineering department performs most of the condition based monitoring. Condition based maintenance tasks are included in the Appendix Ai. The replacement of wearing parts might be postponed or brought forward based on the plant condition. There will also be corrective actions based on the observations from the condition monitoring activities. Where a component or plant breakdown occurs although it was reported by the condition monitoring personnel then the Contractor will be liable for all costs involved for maintenance work.

#### 1.3.6.5 Daily plant inspections

Defects that put the plant at risk are to be reported to the *Eskom* supervisor or service manager immediately and action taken to correct the fault as soon as possible.

It is expected that all plant deterioration or faults be identified and corrected by the Contractor before they become a major risk to the plant or a break down.

#### 1.3.6.6 Repair times

*Eskom's* works management process requires that work be prioritised and that corrective action be taken as follows:

Priority 1 – 24 hours to affect the repair

Priority 2 – 72 hours to affect the repair

Priority 3 – planned and completed within 5 weeks

#### 1.3.6.7 Revision of maintenance scope

The maintenance schedule is reviewed annually as part of the reliability basis optimising process.

Improvements to the preventative maintenance strategy in line with the RBO process are expected during the duration of the contract. This is regarded as an opportunity for the Contractor to contribute to the strategy for a positive change.

The Contractor makes experienced personnel available for the revision of maintenance strategies throughout the RBO process.

#### 1.3.7 Outage and opportunity work

##### Units 1-3

Maintenance opportunities may come on short notice. When a unit comes down for repairs it is expected that all outstanding work on the units is planned, in readiness for execution on short notice and that when the unit returns to service, that there are no outstanding work orders on planned or corrective actions.

In line with point, 1.3.6.5 above there will be no unidentified faults or defects in the plant when on returns to service.

Test run procedure or RTS commissioning must happen before mill returns to service or put on standby.

During Unit outages, the service teams on the base crew will be deployed to the respective unit on outage.

#### 1.3.8 Shift and standby

This contract makes allowance for standby depending on the arrangements:

The Contractor makes provision for a standby crew (in the event of the shift crew being fully occupied and unable to cope with the number of breakdowns) of a number decided between site manager and service manager to cover plant failures outside of normal working hours.

The standby team will report to site within and not more than 1 hour of being called and attend to the break down situation. Failure to meet this stipulated condition will result in a penalty that will be activated.

The Contractor ensures that there is a second call team available to ensure that the standby persons do not exceed the legal limit on consecutive time worked and to attend to additional emergency work in the event of the first call team being already engaged in breakdown work.

##### Standby roster

The Contractor maintains an up-to-date standby roster and communicates all relevant changes in a list to Majuba's electrical operating desk (EOD).

If standby persons are not reachable on mobile phones, the site manager must take accountability of his/her people to provide means of supplying the required staff at the time without any delays, response time above 1hr will lead to penalties.

The name of the supervisor and site manager must be reflected on the standby list submitted to EOD. Unnecessary delays to resolve problems compared to known standard time taken to do work will then lead to penalties.

#### 1.3.9 Modifications

Only approved modifications with the appropriate drawings and documentation authorised by the *Eskom* modifications committee through the plant system engineer or a recognised alternative engineer will be allowed on the affected plant.

#### 1.3.10 Work interface

The mechanical field is the lead discipline during plant maintenance and the Contractor will coordinate work on the affected plant between all interfacing disciplines and other Contractors and departments. The principal Contractor carries all responsibility and accountability to complete work within the committed time. The Contractor is responsible for planning and notifying Eskom Supervisor wherever services (e.g lagging and cladding) are required by the Contractor. Eskom shall action the request immediately and organise with the Other Service providers.

The Contractor will be responsible for planning and coordinating and providing permits for the following work performed by others:

- Engineering and plant specialists
- Civil works, structural steelwork and sheeting
- Erection of scaffolding in preparation for Work
- Industrial cleaning inside confined spaces or any area that requires cleaning
- Girth gear inspections when required

#### 1.3.11 Working hours

The Contractor's personnel including the site manager and supervisors will be on site during *Eskom* working hours as specified in 4.2.3 below.

#### 1.3.12 Spillages and leaks

The prevention of spillages is viewed to be very important for ensuring plant housekeeping and to avoid environmental contraventions and should be actioned as one of the top priorities.

Any leak must be attended to immediately, it is acceptable that a short term repair is instituted immediately and then a permanent repair be effected on a planned opportunity. The permanent repair programme should be shared immediately and submitted to the Eskom supervisors and Production managers.

Any spillage caused as a direct result of the Contractor will be cleaned by the Contractor at their cost.

#### 1.3.13 House keeping

##### General plant

The Contractor is to ensure that the plant area where work is to be performed is clean before, after and during the maintenance process. Possible sources of contamination are to be addressed by the Contractor before work starts.

All materials, consumables and spares (new, used or damages) etc. Are to be removed from the plant and deposited in the appropriate areas.

These are, unless otherwise directed by the Employer,

- All spares whether damaged, repaired or new are to be booked into the Majuba store immediately
- Scrap steel is to be deposited in the allocated metals bins at designated areas
- Domestic waste is to be deposited in rubbish bins or a domestic waste skips

- Oil whether used or new is to be returned to the oil store or any area within the station as per communication from Eskom.
- Hazardous and contaminated material or waste is to be deposited in the skips provided for this purpose, usually at the fuel oil offloading station.

It is important that when stripping nuts and bolts the Contractor keeps all components in a designated container, provided by the Contractor. It is prohibited to leave bolts on the ground or floor.

**It is prohibited to cut bolts & nuts during stripping of plant unless it can be proven that it is not practical to loosen without cutting off which in this case, the plant supervisor/technician or principal artisan must be informed.**

#### Workshop

The allocated workshop area is to be kept neat and managed according to good housekeeping practices. Only spares in transition between the plant and the stores when planned may be kept in the area. The Contractor must clean this area on inception of the contract.

#### 1.3.14 Plant criticality

The milling plant is classified as critical plant. The plant is required to be available at all times. The mills are referred to as the heart of the boiler plant. It is imperative that a close care and attention is given it. This is governed by the Eskom Fossil Fuel Firing Regulations (FFFR) standard. In this plant fires are experienced and possibility of explosions exists. Hence the culture of superior preventative maintenance is highly recommended.

#### Major plant break down

When there is a major plant break down that can result in a load loss or plant damage due to fire the Contractor will perform repairs immediately and the Contractor's site manager will be on site coordinating the work.

In the event that Majuba power station site personnel (*Eskom* or others) need to be used to provide supervision, the Contractor will be charged at the hourly cost to company rate for the person doing the supervision to recover the costs incurred.

In the event of noncompliance, the service level table will apply as per NEC.

#### 1.3.15 Maintenance planning

##### General planning

The *Employer* requires that milling plant systems be maintained according to a defined maintenance programme developed by the *Employer*. With each and every system the planned maintenance activities are listed with periods at which stage the activity is to be carried out. The scope of work will focus on a specific plant area & equipment.

The *Employer* has a planning system called SAP pm, which records all corrective maintenance identified and all planned maintenance schedules.

All of the *Employer's* documentation will be used in each and every activity performed on the respective plant with accurate information of the required actions undertaken to restore the plant back to working condition. The Contractor is obligated to draft quality working plan to be approved by the Employer's technical expert.

All work orders completed to be verified and approved by Contractors supervisor and submitted to the planning department on the same day that the work is complete. All man-hours, staff used, material used, corrective or planned actions taken must be recorded on the corrective maintenance (CM) or planned maintenance (PM) documentation which is forwarded to the planning division for recording.

The failure mode and correction action taken must be written on the work order in order to permit smooth history capturing.

The Contractor will be responsible for planning and scheduling all work being executed in the affected area. The planning work will be done by competent and qualified planners in line with the Employers work management principles, including scoping of all work categories, the writing of standard maintenance packages, reserving spares and returning spares to the store, creating purchase requisitions for services and spares in the SAP system.

The Contractor's site manager, supervisor, planners and artisans will be required to attend and pass the Employer's OMO training. Training duration ranges from 2 to 14 days depending on the job description.

The Contractor shall provide a year planner and calendar for 3 years showing interval of all mill philosophy outages/maintenance, as per the requirement from the Employer.

The Contractor shall conduct planning sessions to ensure that spares, tools, resources and other consumables are available for each and every mill between three and 6 months before, depending on the lead time of the material delivery including procurement process.

#### Qualification

The planning personnel are to be qualified as per the *Eskom* job profile for a planner/scheduler **gen 030109**.

The Contractor must submit proof of qualifications of all employees.

The *Employer* will provide the required SAP and works management training.

All scheduling activities will be undertaken by the Contractor's planning schedulers – corrective maintenance is also catered for in the same way.

#### Plan submission

Comprehensive plans will be submitted to the appointed/ delegated *Eskom* plant supervisor and Production manager.

Confirmation or commitment of resources is required on submission of the plan.

Planning resolution is to be at least 1 hour.

Plans to be updated in SAP and submitted with all required SAP fields populated.

#### 1.3.16 Spares management

The Contractor will contribute to spares management by timeously providing detail of the spares required to the contract supervisor as well as by identifying and cataloguing spares.

Cataloguing includes the completion and submission of the required form to make items stock.

The Contractor is responsible to make sure that all service spares in the allocated plant are stock item at *Eskom* stores.

The Contractor shall participate in the formation of spares contract.

The Contractor will also be required to verify the existence and correctness of spares and also to perform quality checks on a regular basis. Specifically, the Contractor will be required to do spares audit at station stores for the allocated plant, must proof check SAP quantity versus bin quantity. The bin quantity will be submitted to the *Eskom* supervisor which will then be verified against SAP. This exercise will be done weekly and the Contractor material controller will be accompanied by the *Eskom* stores personnel.

The Contractor will also be required to perform preventative maintenance on the spares associated with the service scope, including in this scope is rotating gearbox and pump shafts, replacing

lubricants, performing internal inspections replacing seals and gaskets and applying preservation material. General overhaul of plant spares with no exceptions.

### 1.3.17 Plant and plant equipment alignment

The Contractor will perform all the machine alignment required, including:

- All installed equipment but not limited to drives, motors etc. This is to include all alignment methods.
- Mill girth gear installation and alignment, backlash, blues and leads, and cleaning of gears.
- Consumables will be for the Contractor's account.
- The tolerance for all alignment must be adhered and spec confirmed by site engineer or recognised equivalent engineer.

### 1.3.18 Quality control

Majuba power station reserves the right to do quality checks at any time. It will be the philosophy of this contract that if a problem is identified while carrying out an inspection, the immediate rectification will then be necessary before return of the plant.

The Contractor is required to be certified in accordance to ISO9001.

#### QCPs

The Contractor is responsible for creating QCP documents for all jobs and having them approved by the *Eskom* plant engineer, *Eskom* plant supervisor and viewed by the project manager when requested.

The Contractor will ensure that all critical work will be performed using a procedure (which will be provided by Eskom) and QCP. Where no procedure exists, the Contractor will participate in the formulation of the procedure. The standard work package will be reviewed and used by the supplier. Insufficient information must be identified and added by the supplier for completeness of the job.

The *Employer's* agent will witness the work and a results report (hardcopy) will be provided to the *Employer* and uploaded into the SAP system.

All specifications and actions stipulated within plant specific procedures shall be strictly adhered to with exception of any changes stated within the service information or an approved *Eskom* document. Further exceptions to the above procedures must be approved by *Eskom* authorities before it may be implemented.

### 1.3.19 Rigging service related to the execution of work

The Contractor will perform all the rigging work required to execute the work and will ensure that the work is performed by competent and qualified personnel and that all work is executed safely and in accordance with *Eskom* procedures and regulations. All rigging equipment (with the exception of the crane) shall be self-provided by the Contractor.

The Contractor will be responsible for the training of rigging personnel.

### 1.3.20 Welding

The supplier shall adhere to all *Eskom* standards, rules and regulations. All welders shall be class coded for level one plant as per the Eskom welding rule book.

Welding inspector shall manage the cutting instructions, welding procedures, material certificates required for the allocated plant. All welding procedures applicable to the allocated plant shall be required to be followed by the all QCPs.

The supplier must fabricate or assemble mill feeder chains using approved procedures.

#### 1.3.21 Strike action

Majuba power station is a national key point and as such strike action and the associated intimidation and other activities associated with industrial action place the power station at risk. The Contractor is to ensure that the contracted service is performed regardless of strike and industrial action.

The Contractor is to take all possible steps to ensure that strike action and the associated intimidation and other activities associated with industrial action do not take place on the premises of the power station.

The Contractor is required to provide an action plan for approval on how this situation is going to be mitigated. Contractor may only manage the risks which are within their scope of influence and/or control

#### 1.3.22 KPIs

The *Employer* uses KPI to determine the successful performance of the plant area. The Contractor is required to perform maintenance in order to meet these targets. The KPI's are subject to change on an annual basis or required by the station. The service level table in section 5 contains penalties that are tied to these KPI's.

##### **The Standard KPI. (This may change as per business needs)**

Scheduled compliance	100%
Pm compliance	100%
Statutory work order violation	No violations
P1 work order not closed within 24 hours	Not more than one outstanding
P2 work order not closed within 72 hours	Not more than two outstanding
Mill availability	100%
Mill trips	No trips
Safety work orders not attended to within 24 hours	No violations
Mill UCLF as per station target	0.1 is the target. Stretch and ceiling will be issued
Mill EAF as per station target	As per the station contract
Work order back log	As per station contract/ Task Team directive
Planned & breakdown jobs	Committed target adherence
Unit trip due to mill unreliability	No trips
Rework	Zero percentage

#### 1.3.23 Plant hazards

The Contractor will conduct a base line risk assessment and provide to the service manager and abide by safe work procedures that mitigate each risk identified.

**240-77471499 - annexure a - supplier risk category** contains the possible hazards identified by the *Employer*.

Weather conditions are to be taken into account and the Contractor is to put measures in place to execute the work regardless of weather conditions.

#### 1.3.24 Delegation of contract roles

The service manager may in terms of NEC clause 14.2 delegate certain planning and coordinating roles to others.

The plant supervisor/ delegated personnel will be the official and recognised direct point of contact with the Contractor.

### 1.3.25 Procedures

In the event that *Eskom* policies and procedures should change, the Contractor is required to adopt the replaced or revised procedure.

### 1.3.26 Contract conclusion

The Contractor provides safety file on conclusion of the contract to the service manager.  
The safety file contains exit medical certificates for all employees associated with the contract including persons leaving employment of the Contractor before the end of the contract.

## 1.4 The Contractor's plan for the service

The Contractor shall provide an overall plan which stipulates how the provision of the services shall be facilitated in order to meet the Employer's needs. This will include the availability of competent staff and necessary equipment, team/s reporting to site within the stipulated time, meeting quality requirements, including defect correction and management of incompetency and ill-discipline. Qualification and CV of employees must be submitted.

For the duration of the contract the Contractor will provide comprehensive rolling programme which will contain duration, planned start dates and times for a specific type of activity. This will be especially required where work will affect other activities on site, including during outages. Such programme will be in the form of either Microsoft project, primavera or Microsoft excel spread sheet with durations and resources stated for all the different activities/levels of work to be undertaken. Programmes must be revised whenever necessary to contain relevant information. The planning information will be required to be updated in SAP by the Employers planners. The committed programmes must always be adhered to in order to avoid application of penalty clauses.

## 1.5 Meetings

Meetings will be convened and chaired by the *service manager or an Eskom senior employee* as and when required, including the following:

Table 2.2: meeting schedule

Name	Frequency	Attendance by relevant <i>Employer's</i> personnel:	Attendance by relevant Contractor's personnel:
Contract Kick-off	Once off	Service manager, plant supervisor/manager and/or other necessary representatives.	Site manager, site supervisor and/or other necessary representatives.
Early warning and defect notification	As and when notified by either party	Service manager and plant supervisor/manager and other relevant personnel.	Site manager and site supervisor/manager and other relevant personnel.
Technical and/or non-conformance	At least once every month	Service manager, plant supervisor and technical representative.	Site manager, site supervisor and technical representative.
Safety incidents	For each occurrence	Safety representative, service manager and plant supervisor and others involved.	Safety representative, site manager and site supervisor and others involved.
Section meeting	Daily	Departmental line manager, supervisor, engineer, and others involved.	Site manager, site supervisor's safety representative and planner.

Scope freeze meeting	Weekly	Contract supervisor, planning supervisor	Planner, site supervisor, site manager
Planning meeting	Weekly	Contract supervisor, planning supervisor	Planner, site supervisor, site manager
Prioritization meeting	Daily	Contract supervisor, planning supervisor, production manager and others involved	Planner, site supervisor, site manager
Outage progress meeting	Daily during outages	Contract supervisor, planning supervisor, Eskom senior supervisor, production manager and others involved	Planner, site supervisor, site manager
Contractor safety meeting	Monthly	Departmental line manager	Site manager, site supervisors safety representative
Outage planning meeting	When required	Service manager and supervisor, engineer, and others involved.	Site manager, site supervisor's safety representative and planner.
KPI/ contract risks	Monthly	Service manager and supervisor, engineer, mills stakeholders	Site manager, project manager, site supervisors safety representative and planner.

Additional ad-hoc meetings may be convened as required by either party. All meetings on site shall be recorded using the *Employer's* attendance register and minutes taken. Such minutes or register may be used for the purpose of confirming actions or instructions under the contract as these shall be done by the person identified in the *conditions of contract* to carry out such actions or instructions.

## 1.6 Contractor's management, supervision and key people

The Employer and Contractor shall appoint a competent and trained contract manager / Employer's representative who shall manage all contract related matters and if necessary, may also manage technical issues. Change of this person shall be communicated in writing within one week of such change to the other party.

The Contractor's site manager is required to meet the minimum qualification in line with gen 090211.

The Contractor's site manager will be available after hours telephonically. Where the site representative is not available due to excessive hours worked, leave or illness then a suitably qualified alternate must be made available. Site manager will report to site and provide direction when there are load losses in the plant. Site manager must advise the Employer on action plans, target completion time and etc.

The Contractor shall ensure that there is a competent supervisor for all site work to perform supervision duties. The supervisor/s shall be qualified and experienced in line with Eskom job description gen 090211 and proof of this must be submitted within one week of the contract start date.

The Contractor shall ensure that his supervisor/s become authorized as authorised supervisor/s (AS), in terms of the Eskom plant safety regulations (PSR) within commencement of the contract and authorised as a responsible person (RP) within commencement of the contract. 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) the authorisations are valid for two years only, the Contractor must ensure that supervisors are re-authorised before the authorisation lapses. The necessary training and evaluations will be provided by Majuba free of charge and the Contractor's supervisors must be available to attend, when the course is scheduled. If the Contractor's authorised supervisor/s is not available on site, this implies that work may not be done and therefore low service damages will be charged. Low service penalties will be applied if the Contractor's employees are not authorised on FFFR within the stipulated dates by the project manager

Additionally, the supervisor/s 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 supervisors' ability to either supervise the workers, practice good communication skills (verbal or written) or exercise competency is lacking, the *Employer* may give instruction for the remove the person from site.

Qualified & experienced mechanical artisans qualified according to job profile gen 210211 and technicians qualified according to job profile ps gen 286 assisted by semi-skilled workers will be responsible for all maintenance. They will be knowledgeable and understand hydraulic and, mechanical work, alignments, service of bearings, pumps, fitting- turning, gearboxes and others. These artisans must be competent and thus been able to do manufacturing or assembling.

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" (listed under section 6.2) for positions within the Contractor's organizational structure and be supported by *Eskom's* "recruitment and selection procedure" unique identifier: 32-1023.

The Contractor is required to notify the service manager's in writing when appointing replacements in the core crew.

## 1.7 Documentation

### 1.7.1 Correspondence

Correspondences shall be written formally on the letterhead format of the organisation and addressed to the relevant person. Additionally, each correspondence shall be numbered uniquely in the following manner:

*Employer* to Contractor; ec, followed by a sequential three digit number e.g. Ec001,  
Contractor to *Employer*; ce followed by a sequential three digit number e.g. Ce002

### 1.7.2 Work packages

The Contractor shall provide *Eskom* with a completed quality control procedure (QCP) and work report / job card for each and every job undertaken and this must include technical specifications, findings, space for the client to sign off and comment and include any other relevant information required by the client. The Contractor shall always have the approved safety file on site with all current and relevant documents. Working without a safety file and QCP is not allowed on site and the *Employer* can claim delay damages if this occurs, as the Contractor will be sent off site and can only return once the required documentation is available and in order.

### 1.7.3 Procedure, work packages, QCP, smps created during this contract

All procedure, work packages, smps, QCPs and other when required check list will be provided to the service manager when requested and will remain the property of the *Employer*.

A complete copy of these documents must be returned to the service manager on completion of the contract.

### 1.7.4 Other documentation

All other documentation issued to the Contractor must be duly completed and returned to the *Employer*.

### 1.7.5 Contract conditions

The conditions of this contract are to be taken as the agreed term. No other terms and conditions are to appear in the Contractor job cards, quotations, invoices or any other standard documentation.

## 1.8 Invoicing and payment

### 1.8.1 Purchase order or purchase requisition

A purchase order number shall be supplied to the Contractor prior to any work undertaken on site. The Contractor's supervisor shall ensure that a job card is correctly completed with all the relevant information including date, start time, completion time, waiting time (if applicable), plant description and KS number, description of the work undertaken and spares/consumables used, including quantities thereof. A signed copy shall be handed to the site representative to check, sign off and retain a copy.

### 1.8.2 Emergency work

Where emergency work is performed the Contractor shall within one week of the work being done, supply a quote, delivery note and/or a job card reflecting the tasks undertaken, plant description and KKS number and costs, as per the price schedule items. This is so that the service manager can create purchase orders. On emergency orders the contract rates must apply in order cover the quantity survey checks and ensure fair dealings

### 1.8.3 Assessments

To facilitate payment, the Contractor must ensure the following:

- An official 4500..... Order number is available before commencing any work.
- An assessment is jointly completed by the project manager / Employer's representative and the Contractor and are in agreement of at least the following:
  - Scope completed
  - Quantity completed
  - Value of work completed
- A valid tax invoice, based on the assessment is submitted directly to the accounts payable department,

#### 1.8.4 Tax invoice

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.

Invoices are to be submitted as per the attached e-invoicing letter.

#### 1.8.5 Cost price adjustment implementation (CPA)

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.

#### 1.8.6 Invoice price versus order price

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.

## 2 Health and safety, the environment and quality assurance

### 2.1 Health and safety

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

#### 2.1.1 Eskom lifesaving rules

Five lifesaving 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.
  - No person may be on or within a vehicle that is in any way in motion with out wearing a safety belt
- 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.

### 2.1.2 Plant safety regulations

- a) The *Employer* shall arrange the isolation of the plant from all sources of danger as described in the plant safety regulations. The permit to work shall be issued to the responsible person (RP) (site maintenance staff/client), indicating which plant has been isolated and any special conditions applicable.
- b) The RP shall conduct a pre job brief on the job site before the work commences.
- c) The RP shall ensure that all of the Contractor's workers sign in on the worker's register in order to declare that they understand the work requirements and dangers. The Contractor shall conduct a comprehensive risk assessment and establish that works are well conversed before the work can continue.
- d) The *Employer* shall, on request, make available a copy of the latest revision of the plant safety regulations to the Contractor.
- e) All work on plant is governed by the plant safety regulations and Contractors must comply fully no permit to work available implies that no work may be done.
- f) The Contractor is to ensure that all artisans are authorised in terms of PSR no later than on commencement of the contract.
  - Note: the Contractor is requested to have at least 50% of employees being RP's as soon as possible upon commencement of the contract.
- g) Each of the Contractor's teams performing work must have its own RP and authorised supervisor. All skilled employees including supervisors must be authorised as RP's including all supervisors and site manager.
- h) This contract includes for the PTW requirements for outside Contractors doing specialized work or upgrades/projects for the milling plant. Continuous supervision of outside Contractors must be provided for and cost must be included in the monthly contract amount.
- i) The *Employer* is to supply all their RP and AP persons with arc flash suits as per the PC requirements. These are to be supplied at the Contractor's cost.
  - One suit per RP every 2 years, any damages before two years must be paid for by the supplier

### 2.1.3 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.

### 2.1.4 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 *Employer's* representative (plant supervisor) and service manager must be informed **immediately** of all safety incidents including fatalities, medicals and first aids and near misses. Any damage to property or equipment must be reported to the *Employer's* representative 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 Employer's representative and service manager 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.

#### 2.1.5 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 (LEVS), 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.

#### 2.1.6 Barricading / screens and scaffolding

- a) The Contractor shall be responsible to adequately barricade off of working areas and display warning signs to ensure that people and plant are not exposed to danger or to prevent access to work areas.
- b) The *Employer* will supply scaffolding and barricading if with at least 24 hour notice given. Tampering, adjustment, moving or dismantling of any approved scaffold is not allowed – this may only be done by the scaffolding service provider.

#### 2.1.7 Health and safety arrangements

- a) The Contractor shall comply with the guidelines set out in the *Eskom* standard **23-726** titled **she requirements for Eskom commercial process**, **32-136** titled **Contractor health and safety requirements** and **32-296** titled **integrated she organisation; roles and responsibilities and statutory appointments**
- 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 *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, 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:
  - o 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 registers 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 OHS Act

#### 2.1.8 Company branding

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

#### 2.1.9 Special requirements

The Contractor allows for staffing based on a full running station of which some of the units may two shift. The light up requirement will vary depending on national electricity demand.

The Contractor seeks employees from the local Seme districts as per "ANCYL protest Majuba actions".

#### 2.1.10 Exposure to silica

The risk of exposure to silica and coal dust is high. The Contractor is responsible for ensuring that all employees working in the boiler areas wear appropriate SABS approved dust mask and that they are used correctly.

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. The above reports must be submitted to the *Employers* doctors 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:

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

- 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.
- Contractors' activities/ services shall be carried out as per the above procedures and **bia/rm/std/01**

#### 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 also 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, 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 control and 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 Personal competency

Proof of the Contractor's personnel competency in terms of regulation 18 (5 and 6) of the OHS act is required by the *Employer*.

#### 2.3.2 Quality requirements

The Contractor will additionally comply with the Employer's quality requirements as specified in standard **qm58**. This includes the Contractor's iso 9001 registration certification of compliance

#### 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.

### 2.4 General requirements

The Contractor to note and comply with the following:

#### 2.4.1 Direction and instructions

The Contractor shall operate under the direction and instructions of the Employer or such appointed person/s who may give instruction without transgression of the contract, any legislation and regulations including the occupational health and safety act and the generation plant and safety regulations.

#### 2.4.2 Workmanship

The Contractor shall maintain a high standard of workmanship as expected by the Employer and shall comply with any quality assurance and quality procedures implemented by the *Employer*. Rework will be penalised under low performance damage closes.

#### 2.4.3 Section 27(2)

Contracts shall include, in terms of section 37(2) of the OHS act an agreement to ensure compliance by the mandatory with the provisions of the act.

#### 2.4.4 Non-compliance

The non-compliance of the Contractor in terms of safety and quality requirements is claimable as low services damages by the *Employer*. It is the Contractor's responsibility to clarify all requirements and ensure that compliance is maintained during the contract period.

#### 2.4.5 Labour laws

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 Procurement

#### 3.1 Subcontracting:

Clause 26.2 of the NEC3 Term Services Contract will apply, which includes the following:

The Contractor submits the name of each proposed Subcontractor to the Service Manager for acceptance. The Contractor does not appoint a proposed Subcontractor until the Service Manager has accepted him.

#### 3.2 Plant and materials

##### 3.2.1 Correction of defects

Defect to be treated as a matter of urgency and should be attended in minimum possible time.

##### 3.2.2 Plant & materials provided "free issue" by the *Employer*

Scaffolding, lagging and cladding, passenger and goods lifts, fixed-plant –hoists and cranes will be provided without cost to the Contractor upon the Contractor's request, if available at the time. These may only be installed /operated by persons who have authorisation to do so.

The Contractor will at his cost ensure that his employees are authorised for the use of all lifting equipment including folk lifts, hoists, cranes, and that all artisans are trained and authorised to do basic rigging. Qualifications thereafter shall be reviewed by *Eskom* as and when required

The *Employer* will provide the spares and materials required for maintaining the plant. Contractor to notify the Employer three to six months( depending on lead time) before the spares maybe needed failure to which the Contractor must provide their own means to acquire and use the required spares without causing the Employer delays.

## 4 Working on the affected property

Whilst working on site the Contractor will adhere to all *Eskom* and Majuba power station site regulations.

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

The Contractor shall prepare and submit the safety plan and other documents in a file within one week of the contract start date and which shall be corrected if necessary to be approved within one week thereafter. Safety induction is provided subject to the safety file being approved by one of the safety risk officers of Majuba power station and thereafter, the file must always be available when work is done on site.

Access to site is dependent on the all workers undergoing a short (1 hour) safety induction and then only will access permits be issued for workers and construction vehicles to enter. Work will not be allowed without induction provided by the *Employer* for each and every worker.

Medical certificates of workers can only be issued by occupational health practitioners and includes hearing, sight and lung-function tests and may include psychological evaluations for workers who work at heights and/or any other requirement stipulated by the safety risk officers.

See **bia/rm/std/01** for all relevant details or contact the safety risk officers at 017 799 3121  
Or 017 799 3445.

#### 4.1.1 Security and access arrangements

- a) The Contractor may apply for a temporary or permanent photo permit (if on site for longer than two months) as well as vehicle permits at the security office, after completing induction.
- b) The following information is required for permits to be approved (temporary permit forms will be provided by the safety risk officer conducting the safety induction):
  - o Employee name and id number
  - o Company
  - o Contract validity date
  - o *Employer's* representative signature
  - o Copy of the first page of the id book of each employee
- c) The Contractor's personnel will be required to be in possession of their access permit at all times and will produce them at the security gate on every occasion or whenever requested. All Contractors' permits must be returned to protective services when the relevant personnel leave the site permanently and upon completion of the services. Any lost photo permits will be paid for by the Contractor.
- d) The Contractor's visitors and all personnel shall conform at all times, to the security arrangements in force at the time. Application forms for visitors must be completed by the Contractor's site manager and approved by the *Employer's* representative at least one day before the visit and submitted to the protective services office. Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.
- e) Protective services may with valid cause, remove any of the Contractor's personnel from the site, either temporarily or permanently. Access may be denied to site to any person, whom in the opinion of protective services, constitutes a security risk. No compensation is claimable by the Contractor if this occurs.
- f) No unauthorised vehicles will be allowed on site. Only Contractor's vehicles with contract vehicle permit disks will be allowed on site. Contract vehicle permit applications should be directed to the *Employer's* representative.
- g) The Contractor will be restricted to the working areas associated with his place of work. The Contractor is forbidden to enter any other area, and must ensure that his employees abide by these regulations.
- h) Parking inside the power station buildings or in front of driveways, doors and gates is strictly forbidden, except for loading purposes.
- i) No recruiting of casual labour may be done on the *Employer's* premises, including the area outside the power station security gate.

## **4.2 People restrictions, hours of work, conduct and records**

4.2.1 Only authorised persons may have site access and perform work.

4.2.2 Majuba power station normal working hours are:

- Monday to Thursday – 07:00 to 16:15
- Friday – 07:00 to 12:00

The Contractor will however, provide the services during all hours.

4.2.3 Working hours

As per the labour regulations act and the basic conditions of employment act, no person is allowed to work more than 12 continuous hours per shift on planned work. The Contractor shall ensure that workers are relieved from duty after working twelve hours. However sixteen hours on emergency work is allowable all hours inclusive.

4.2.4 Removal from site

The Employer reserves the right to have any of the Contractor's personnel removed off site if, in the *Employer's* opinion, it is warranted. The Contractor will conduct their investigation to that effect. However the Employer may remove such person effective immediately without prior notice.

## **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 Cooperating with and obtaining acceptance of others**

Proper co-ordination and work planning must be done when working in any area where others are performing work or activities. Interfacing may be required with the site maintenance personnel and others. A list of all required supportive service must be notified before work commencement to avoid delays which may lead low performance damages.

## **4.5 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.

## **4.6 Equipment provided by the *Employer***

- Scaffolding can be supplied after notification and call-out of the relevant scaffolding service provider. Other equipment such as cranes may be supplied upon request and if available at the time on site. Licenses to operate the equipment will be the responsibility of the supplier.

Rigging equipment, lights, hand tools and other equipment will not be provided by the Employer and the Contractor is to conduct his operation in such a way as to make lending of tools from the Employer or other

Contractors a no go. All known and unknown tools will be under the Contractor's responsibility. No single tool whether specialised or normal may come from the Employer without permission. If the Employer/other service provider happens to lend any tool to the Contractor and it is damaged or lost, then the Contractor will be liable for the cost involved. No delays on a job will be allowed due to unavailability of tools by the Contractor and this will lead to low performance damages.

## General

The Contractor is to provide their own tools/ special tools and equipment for execution of all tasks. The Contractor will have to conduct a short study to determine all specialised and normal tools applicable in the milling plant.

### Summery and non-comprehensive tool list example:

Consumables	Workshop tools	Special tools
Silicon	Bench-vice	Torque-wrenches
Welding rods	Flogging spanners	Tractor, trailer and 2.5 ton forklift
Gas in bottles	Bench grinder	Impact-wrenches
Cutting discs	Pillar drilling machine	Bearing & coupling poolers applicable in the milling plant ( main gearboxes, motors and all drive trains)
Bolts and nuts	Pipe ranges	Rigging tools
	Hand grinders	Torque multiplier and cylinder for girth gears replacements
		Welding rods ovens
		Big and small welding machines
		Argon welding bottles
		Mobile jacks for coal feeders, pumps, gearboxes & etc.

#### 4.6.1

All equipment, tools, transport and consumables for performing the services are to be supplied by the Contractor. The Contractor's tools and equipment must be on a planned maintenance schedule and must be inspected before dispatched to Majuba power station.

The Contractor shall maintain a calibration and inspection schedule for all measuring equipment used and shall make the schedule and results available to the Employer upon request.

Access to site with equipment and tools will only be granted upon the submission of a printed tool/equipment list to the security department. Any items not on the list and brought onto site, may not be removed from site thereafter.

The Contractor will maintain his equipment in a serviceable condition and comply with legal requirements regarding testing and maintenance of equipment. The Contractor presents the maintenance and inspection schedule to the service manager on a 6 monthly basis.

No delays on jobs will be allowed due to unavailability of tools by the Contractor. More than two delays will result into contract termination

#### 4.6.2 Rigging

The Contractor will provide all rigging equipment, for performing the services all the Contractor's equipment must be serviceable and on a planned maintenance schedule and must be inspected each time before being used on the plant. The entire Contractor's rigging equipment must comply with the relevant legal requirements. The Eskom rigging department will also perform their audit at any given time and will enforce compliance accordingly.

## 4.7 Site services and facilities

### 4.7.1 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 use at the Contractor's own cost.

#### **4.7.2 Provided by the Contractor**

The Contractor is to supply all the personal protective equipment, transport, accommodation, tools, equipment and consumables to perform all the required tasks on site. Safe work procedures, quality control plans/procedures and complete/bill of material required to maintain the plant.

Material request must be made in no less than a practicable lead time of purchase including 4 weeks of purchase request approval and a delivery period. Every three months to six months before-hand, the Contractor must submit a list or bill of materials that will be required to do the job for the next three to six months. A one year plan and calendar for mill outage services and other planned jobs must be provided by the Contractor on an annual interval or when requested, updates and revisions must be submitted monthly.

#### **4.7.3 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, etc.

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 Control of noise, dust, water and waste**

#### **4.8.1 Waste disposal**

Waste is to be disposed of in bins supplied by *Eskom* – yellow bins for general waste and red bins for hazardous waste. However, the Contractor is expected to remove all his own waste from site, as far as possible.

#### **4.8.2 Noise**

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

### **4.9 Tests and inspections**

The site maintenance staff or quality control personnel shall inspect the Contractor's work and sign off all relevant documentation, if the work is satisfactory. Thereafter, plant shall be test run and the Contractor informed of any defects. The Contractor may be present for any test running. During quality intervention actions by relevant stakeholders the Contractor must provide a transfer transmittal which will be filled as a record.

## **5 Service level table**

The following table depicts the level of performance required of the Contractor. Should the Contractor be unable to meet these requirements, low service damages will be claimed from the Contractor. The total low service damages will be limited to 10% per month.

Table 6: service level table for low service damages

No.	Description	Employer's requirement	Damages payable by Contractor
1	Approval of safety file	2 weeks before contract commences	R500.00 per day without approved safety file provided the contract is signed 2 weeks before contract commencement date
2	Approval of quality management system	Within 2 weeks of contract start date.	R1000.00 per day without approved quality file provided the contract is signed 2 weeks before contract commencement date
3	Authorisation of supervisors	Within 2 months of contract start date.	R1000.00 per day without an authorised supervisor
4	Authorisation of artisans	Within 3 months of contract start date	R2000.00 per day without an authorised artisan provided training is arranged timeously according to the Contractor's proposed dates that will be provided after contract award. Should training not be arranged for those planned dates, the Contractor cannot be penalised due to the Employer's fault. Activities within the program where resources are trained will be extended and accepted by the Employer within the program.
5	Authorisation of all artisans	Within 12 months of contract start date	R30000.00 per day without an authorised artisan, provided training is arranged timeously according to the Contractor's proposed dates that will be provided after contract award. Should training not be arranged for those planned dates, the Contractor cannot be penalised due to the Employer's fault. Activities within the program where resources are trained will be extended and accepted by the Employer within the program.
6	Arrival on site for call-out	Within 2 hours of call-out.	R2000.00 per hour of delay or part thereof. Should the Contractor be delayed due to unforeseen circumstances beyond their control i.e. road accident,

			the Contractor will not be penalised.
7	Non-attendance of meetings without notifying the client or sending a representative to the meeting	Every listed meeting to be attended	R2000.00 per incident
8	Excessive task duration	Within the time specified by Contractor's plan as approved by the service manager.	R1000.00 per hour of extended duration or 5% maximum of the monthly contract value whichever value is lower, provided there are no delays due to the Employer's Contractors, and subject to inspection findings. Mutual agreement between Eskom and the Contractor.
9	Scheduled compliance	100%	R1000.00 per day of extended duration or 3% maximum of the monthly contract value whichever value is lower, provided there are no delays due to the Employer's Contractors, and subject to inspection findings. Mutual agreement between Eskom and the Contractor.
10	PM compliance	100%	R1000.00 per day of extended duration or 3% maximum of the monthly contract value whichever value is lower, provided there are no delays due to the Employer's Contractors, and subject to inspection findings. Mutual agreement between Eskom and the Contractor.
11	Statutory work order violation	No violations	1% of monthly contract value maximum
12	P1 work order not closed within 24 hours	Less than 1 outstanding	R3000 for each one per month provided there are no delays due to spares availability as well as Employer's Contractors.
13	P2 work order not closed within 24 hours	Less than 3 outstanding	R3000 for each one per month provided there are no delays due to spares availability as well as Employer's Contractors.
14	Safety work orders not attended to within 24 hours	No violations	0.5% of monthly contract value
15	Work order back log	No more than 05 outstanding	R1500 for each outstanding provided there is no backlog at the beginning of the contract
16	Planning information not submitted as required. No work will commence prior to	Work executed without approved plan	R3000 of monthly contract value. Delays caused by the

	signing of the plan by both parties.		Employer in accepting program will entitle Contractor to additional costs and/or time
17	Work not executed as planned	Work committed by the Contractor not executed	R1000 per job per day of not compliance up to 10% of the monthly contract value, subject to spares availability access and no delays caused by the Employer. Works Information must be available 30 days before start date, except in the case of emergency breakdown.
18	Plant failure after returning from maintenance work and rework	No delays when returning plant to service or rework	R1000.00 per hour of extended duration or 5% of the monthly contract value whichever value is lower. Penalty is only applicable on a come-back area where the Contractor was working. A 24 hour commission period will apply.
19	Standby team arrive to site late on callout	Standby team to start with repair work within 2 hours of being called provided access is granted, spares available and within 1 hour of obtaining permit	R2000 per hour or 10% of the monthly contract value whichever value is lower.
20	Reaction to breakdowns	Permit must be requested within 30 minutes and be correct.	R3000.00 per hour of delay in requesting permit 10% of the monthly contract value whichever value is lower, provided the Employer's authorised person is available to approve the permit.
21	Maintenance crew on work site in time	Maintenance crews to be on the job within 30 minutes of permit issue, signing of all relevant safety documents and completion of toolbox talk. With all the correct tools.	R3000.00 per hour of delay in team being on site, 10% of the monthly contracts value whichever value is lower.
22	Maintenance crew on work site and shifting before work is complete	Maintenance crews to have all the correct tools on the work site.	R1500.00 per hour of delay due to fetching/ looking for tools provided the scope of work is given to the Contractor at least a day before work can commence.
23	Supervision	No supervision and management during high risk break downs	As per major plant break down in 1.3.above. Limited to 10% of the contract value
24	Spares requirements	Spares and materials not requested at least 3 to six months before being required	R5000.00 per day or 5% of the monthly contract value whichever value is lower, provided the Employer provides the Contractor with the future plan and scope 3 – 6 months prior to shutdown, and any planned

			maintenance work.
25	Safety file not submitted for monthly audit on time	Submit Safety file monthly to the Employers safety department for audit by submitting a formal request for the file.	5% of monthly contract value.
26	CODI and SARS letter of good standing	Letters not provided to the service manager before the previous year expires by submitting a formal request for the letter.	5% of monthly contract value.
27	Exit medical	All excite medical certificates not included in the safety file	Final contract payment.

## 6 List of documents

### 6.1 Drawings issued by the *Employer*

The following drawing issued to the appointed Contractor.

Drawing number	Revision	Title
0.66/775		P & ID PF, air and flue gas system
0.66/89023		PF Pipes from Mill 1 to 1st burner row
0.66/89024		PF Pipes from Mill 2 to 2nd burner row
0.66/89025		PF Pipes from Mill 3 to 3rd burner row
0.66/89026		PF Pipes from Mill 4 to 4th burner row
0.66/89027		PF Pipes from Mill 5 to 5th burner row
0.66/89028		Seal air piping isometric
0.66/89029		Seal air piping isometric
0.66/1247		Arrangement of milling plant longitudinal and lateral views
0.66/1253		Arrangement of milling plant plan view
0.66/1085		General arrangement for one mill
0.66/1086		Position of measuring points
0.66/1088		Electrical, water and air terminal points
0.66/1828		General arrangement of mill sound enclosure Part 1
0.66/1830		General arrangement of mill sound enclosure Part 2
0.66/0966		PF and air circuits for mills 10, 20 and 30
0.66/1070		Level control lubricating and fire protection systems
0.66/1250		HFC Mill fire protection system
0.66/2705		PF and air circuits for mills 40 and 50
0.66/31641		HFC Level control system
0.66/18243		Main reducer lubrication system
0.66/18043		Main bearings lubrication system for mills 10 and 50
0.66/18402		Piping and instrumentation girth gear lubrication system

## 6.2 Relevant documents

The following Employer documents are relevant for this contract.

Drawing number	Revision	Title
32-727	-	SHEQ Policy
RA/RM/STD/01		SHE Specification for Contractors Rev 1
MAJ/187	0	S.H.E. PLAN CHECKLIST
37.2 Agreement		SECTION 37(2) AGREEMENT
		APPOINTMENT OF THE PRINCIPAL CONTRACTOR
240- 77471499		Annexure A SUPPLIER RISK CATAGORY
240- 77471499		Annexure B ACKNOWLEDGEMENT FORM FOR ESKOM SHE RULES AND OTHER REQUIREMENTS
240-77471969		Annexure C 2: SHE Tender Evaluation and Scoring Card
240-77472561		Annexure D 1 : SHE Post-contract Reviews
240-77471651		Annexure C 1 (1) : SHE Tender Evaluation and Scoring Card
32-1034	-	ESKOM PROCUREMENT AND SUPPLY CHAIN MANAGEMENT PROCEDURE
23-726	-	SHE REQUIREMENTS FOR ESKOM COMMERCIAL PROCESS
BRIEFING NOTE 23-726		SHE REQUIREMENTS FOR ESKOM COMMERCIAL PROCESS
32-136	-	CONTRACTOR HEALTH AND SAFETY REQUIREMENTS
32-296	-	INTEGRATED SHE ORGANISATION; ROLES AND RESPONSIBILITIES AND STATUTORY APPOINTMENTS
240-62196227	-	LIFE-SAVING RULES
32-418	-	WORKING AT HEIGHTS
32-345	-	ESKOM VEHICLE SAFETY SPECIFICATIONS
QM-58		SUPPLIER CONTRACT QUALITY REQUIREMENTS SPECIFICATION
Gen 030109		JOB PROFILE: PLANNER WORK MANAGEMENT
GEN 090211		JOB PROFILE: SUPERVISOR
Gen 220211		JOB PROFILE: ARTISAN RIGGER
GEN 210211		JOB PROFILE: ARTISAN FITTER
Gen 180211		JOB PROFILE: ARTISAN CODED WELDING
PS Gen 286		JOB PROFILE: MECHANICAL TECHNICIAN/ ENGINEERING ASSISTANT
36-505	1	WELDING RULE BOOK: Personnel and Entities Performing Welding Related Special Processes on Eskom Plant
36-775	1	WELDING RULE BOOK: Control of Plant Construction Repair and Maintenance Welding Activities
36-680		FFFR

<b>ENG/GEN/STG/13</b>		<b>RBO Strategy Document</b>
<b>36-681</b>		<b>PSR</b>
<b>APPENDIX A</b>		<b>SAMPLE MAINTENANCE PLANNED TASK LIST</b>
<b>APPENDIX B</b>		<b>SAMPLE STANDARD MILL OUTAGE SCOPE</b>
<b>APPENDIX</b>		<b>ANCYL PROTEST Majuba Actions</b>

**NB:** This is just an example, KPI will developed as per the business need

MAJUBA MILLS MAINTENANCE SERVICES																				
MAINTENANCE CONTRACT EVALUATIONS																				
PERIOD:																				
CRITERIA	WEIGHT	TARGET	May-05		Jun-05		Jul-05		Aug-05		Sep-05		Oct-05		Nov-05		Dec-05		TOTAL/AVE	
			ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS	ACT	PNTS
Station Performance	55%																			0.00
UCF - Mills FPG	15%																			0.00
EAF	10%																			0.00
MILL TRIPS (accumulative)	10%																			0.00
MILL TRIPS	10%																			0.00
Mill Outage slip	10%																			
Safety Management	10%																			0.00
DIIR	5%																			0.00
NOSA Grading	5%																			0.00
Productivity Improvement	25%																			0.00
Cost Control	5%																			0.00
Ageing WO < 30 days	5%																			0.00
Ageing WO 31-60 days	5%																			0.00
Ageing WO >60 days	5%																			0.00
P1, P2	5%																			0.00
Re-work	5%																			0.00
Standby Call Out	5%																			0.00
TOTALS	100%			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00