PART 3: SCOPE OF WORK

Document reference	Title **The provision of C&I Maintenance scope of work at Grootvlei Power Station including Vaal Dam Pumping Site for a period of 60 month and pulling of cables for as an when required**	No of pages
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C3.1: EMPLOYER'S SERVICE INFORMATION

Contents

1. Description of the *service*

1.1 Executive overview

The Contractor will be fully responsible for maintenance of field instrumentation at Grootvlei Power Station including Vaal Dam except for systems that are maintained by their OEMs. Where a contract exists, the Contractor will be responsible to do first line maintenance. The Contractor is expected to have full knowledge of systems mentioned below and proof of such knowledge.

1.2 Employer's requirements for the service

1.2.1 A. Employer's Detailed scope of service

1.2.1.1. Maintenance to be performed will include inspections, verification, loop checking, stroke checking of all actuators, function checking, commissioning, repairing, removing, replacing and testing of field instrumentation of all C&I related plants at Grootvlei Power Station including Vaal Dam. QCPs must be filled and both Eskom and the *Contractor* must have copies of such for filing.

1.2.1.2. The *Contractor* is responsible for the maintenance of the total control and field instrument system that is working on 24Vdc. This shall also include any circuits that work on voltages less than 220V AC and 220V DC.

1.2.1.3. The Employer has to authorise any equipment changes (Plant) or modifications. (In all cases even if there is a need to move equipment, change equipment, or add equipment).

1.2.1.4. The *Contractor* shall render service with no additional cost, for any tests required by other *Contractor*s representing Maintenance at Grootvlei Power Station, and Grootvlei Power Station permanent staff.

1.2.1.5. The *Contractor* shall also render a service to C&I engineering, outage department during outages and any other related work and no additional costs will be charged.

1.2.1.6. The Project Manager shall report directly to the C&I Maintenance Manager/ Contract Manager, for the day-to-day issues.

1.2.1.7. The *Contractor* shall maintain the environmental conditions where C&I equipment operates in the equipment and server rooms as specified in 240-56355731 Environmental Conditions for Process Control Equipment Used at Power Stations Standard.

1.2.1.8. The Employer will supply all the Spares needed by the *Contractor* to execute the scope at hand. However, a proper fault-finding should be performed and be demonstrated until replacement of the instrument is the last resort.

1.2.1.9. The *Contractor* must assist at no additional costs other than provided in this contract, in terms of commissioning of all new plants and maintenance on new handed over plant after a modification.

1.2.1.10. The *Contractor* must assist with modifications which arise from any equipment change due to the currently used equipment being obsolete at no additional costs and only if such modification fall under ECM procedure Doc number: 240-53114002 and a Project related modifications then such modification will be at Eskom's cost.

1.2.1.11. All documents generated in the course of executing work on behalf of the Employer in accordance with this contract to be filed and stored appropriately, and to be made available for audit purposes as and when required.

1.2.1.12. The *Contractor* to perform the Protection Checks when required and/or after a GO, mini-GO or an IR.

1.2.1.13. The *Contractor* shall also assist with monitoring and optimisation of process parameters on a small scale where required and manage field simulations.

1.2.1.14. The *Contractor* shall ensure that all its employees are authorised in terms of Plant Safety Regulations (PSR), training will be provided by The Employer on site.

1.2.1.15. All C&I documents (either on softcopy or hardcopy) in Eskom's possession, whether it be OEM or at "Black Box Interfaces" with similar *Contractor*s, which is required for plant operation and maintenance purposes will be made available to the *Contractor*.

1.2.1.16. Any tool required for maintenance work needs to be supplied by the *Contractor* as per the minimum standard tool list as per section 1.2 .6. 1 but not limited to the tool list.

1.2.1.17. All transportation requirements required by the *Contractor* for its employees will be provided for by the *Contractor*.

1.2.1.18. Tools must be maintained, those that must be calibrated, be calibrated and kept safe and under working condition, when lost shall be replaced by the *Contractor*.

1.2.1.19. The contractor shall execute the scope as per routine works management process by doing preventative maintenance and corrective maintenance accordingly

1.2.1.20. Availability of resources is always compulsory when needed

1.2.1.*B. Roles of Project Manager*

- Overseeing the performance of the contract team
- Enforce discipline where possible
- Attend high level meetings
- Ensure compliance with OSH Act and national standards
- Staffing and Management
- Ensure compliance with Eskom policies and procedures
- Compliance to all legal requirements
- Attends monthly/quarterly contractors meeting
- Ensure team perform to the best as expected
- Address misconducts and unacceptable behaviour
- Maintenance and repairs undertaken
- Performance measures

1.2.1.*C Roles of Supervisor*

- Provide on job training and coaching
- Provide advice on plant problems and possible solutions
- Advice and guide on different ways to faultfinding
- Periodically assess technicians on ability to work related issues especially Honeywell and Mauell system
- Simulating plant conditions
- Conducting on job observations and make recommendations
- Attending and participating in meeting discussions etc. and write comprehensive technical report as required
- Participate on QIM actions
- Perform quality checks of goods received against technical specifications
- Spares management and Spares movement

- Supervise activities as per contract
- Explaining the procedure the job and all risks involved to staff
- Ensure that the team apply the correct permit practices and adherence to process and procedures
- Compile monthly report which will contain the minimum following subsections which should be submitted every Friday of month end - Lowlights and Highlights
- Conducts and record pre job brief and post job briefings and safety talks
- Regulate PMs integrity
- The contractor will include other items in the report that may be of interest to the Power Station
- The contractor shall attend daily morning meetings of the employer to provide feedback and updates as per agenda of the meeting
- Hold weekly meetings with Service Manager and Supervisor where weekly report is discussed and area of improvements are addressed
- Oil burner management interfacing.
- Outside plant sequencing testing on DCS, protection test and trip testing on DCS, PLC, or the system used.e.g. Honeywell, MAUELL
- Simulation of signals with the necessary written authorisation, control and removal of simulations as soon as possible.
- To maintain an acceptable access control system in C&I restricted areas when installed**.**
- The Contractor is to be involved in trip and load loss investigations and also assist with investigations during normal working time and after hours. The Contractor must be able to pinpoint problems as well as suggest solutions
- The oil burner management system interface (Fail Safe Control).
- Commissioning, investigation of faults, clarification of problem areas, AGC performance, review of planned maintenance program, specialized faultfinding
- All the simulations shall be managed as per the local procedures GVLEG004 and GVLO0275
- Commissioning of the newly installed loops to ensure that the loop is complete, and the plant is operational.

1.2.1.*D Roles of Senior Technician*

- Recommending maintenance related enhancements
- Attending to equipment caring and personnel safety
- Rendering technical advice/support
- Addressing day to day technical issues
- Support technicians when need arise
- Optimizing fault-finding methods
- Advising and guiding section in solving complex technical problems
- Above not limited as will also need to attend the day-to-day activities with the rest of the team

1.2.1.E CLERK – duties of clerk to address the contract duties

- Arranging appointments, taking minutes, booking meetings and conference facilities
- Perform various administrative duties
- Ensures documents used (Agendas, Meeting minutes etc.) are up to date
- Ensuring the section admin is up to date
- Monthly checks on toolbox and PPE and updates accordingly

Skills and competency

- Knowledge of office techniques
- Communication skills
- Time management
- Computer literacy
- Ability to use excel, word, PowerPoint etc.

1.2.2 Routine Work

- Unit & Outside plant fault-finding from primary element up to and including of relevant DCS/PLC termination module and replacing of relevant field instruments.
- The Contractor must inspect the Boiler Metal temperatures after Mechanical Contractor has welded them on Superheater stages, which constitute getting inside Penthouse/Dead Space and checking if the thermocouples are welded on the correct Superheater stage and pull them outside to the correct junction box.
- All electrical actuators (binary & control) and setting of appropriate limits for adjusting of stroke (including cabling from equipment room to valve or dampers, and equipment room to first point of termination). All pneumatic controllers and valves, stroke check and adjusting of pneumatic positioners where needed.
- Tube leak detection system maintenance
- Faulty alarms should be corrected from primary element up to DCS module.
- Investigate into the function and reliability of primary elements.
- All temperature compensating cable and associated elements.

Maintain the public address (PA) system

- Running maintenance includes daily walk-downs to confirm the field instruments condition and to identify and address visible faults. All defects or potential failures will be recorded.
- The Contractor must complete all preventative maintenance within the time span given. Where Permit to Work is required, the work will be planned with the Production Manager.
- Emergency maintenance lesson learned, and standby activities lesson learned to be shared in the morning/ toolbox meetings on a daily basis.
- The Contractor must complete all notifications within the given time span, according to SAP system and Work management prioritization guide (classification of notification priority 01, 02, 03, 04, 05).
- Corrective planned and preventative maintenance will be prioritized with the emphasis on the corrective maintenance or according to the priority.
- The Contractor will deliver quality maintenance according to the Grootvlei Standard Quality Control Procedures (QCP’s will be drawn up for all work to be performed by the Contractor).
- The primary elements on the MV and LV switchgear will be from the last termination point in the switchgear including the cabling to the DCS.

- This will include the terminations in the actuators, situated inside the actuator termination box.
- The removal and replacement of spares (disposal if requested) of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pick-ups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's, gauges, vibration pick-ups and limits, that operates on less than 220V AC and 220V DC.
- All Main Turbine SFPT field instrumentation up to the associated DCS or control system termination point in the marshalling cabinets.
- FFP and dust monitors, the control and verification of appropriate instruments and circuits.
- All solenoid valve coils on units and outside plant below 220V AC and 220V DC, power to the coil and operation of the coil.
- Instrumentation will be removed and replaced as so requested by mechanical & electrical group when work has to be done, and change would be that equipment would be damaged.
- All tubing on instruments, only those that are control and instrumentation related.
- All cable trunking on appropriate cabling is seen as part of Instrumentation.
- To supply a service free of charge to the mechanical sections where necessary/ needed (fault rectification, fault finding, calibration of gauges etc. that concern instrumentation and the effective operation of the station).
- To supply a service to the Boiler, Turbine, Milling and outside plant sections where necessary/ needed.
- Control and Instrumentation to render a service to electrical sections where necessary/ needed.

1.2.3 Outage Related Work

- Opportunity outages should be utilised for changes and/or backups and upgrades where required.
- The Contractor represents Eskom in all the appropriate meetings for activities at all times during outage. The Contractor to give feedback of activities or issues raised at the outage meeting on a daily basis to the Eskom personnel.

- The Contractor in conjunction with the Employer shall draw up the Outage & GO plan as part of his scope. The main aim of the maintenance is to restore the plant to a higher level of integrity. The Contractor will perform all the work according to the scope of work for the specific plant within the duration of the outage. The outage scope determination for C&I related activities shall be based on the type of outage
- The aim of the maintenance Contractor is to correct outage defects, and to ensure that the plant is available when the unit is returned to service, with the least impact on production and business performance. This occurs typically, during a boiler tube leak when the unit is shut down, either planned or unplanned. The time interval to decide to shutdown varies from hours to twenty-eight days.
- The Contractor should inspect his plant system that he is responsible for before the return to service of the plant and ensure that the plant is in an operable state that will not cause unnecessary delays.
- Contractor should raise notifications on Flip system or SAP, after partaking on the plant walk down and there are defects identified.
- In the event where an upgrade or change to plant configuration is necessary the Contractor should notify Eskom, and Eskom shall make final decision.
- When an outage plan or knowledge of an outage is known or available, Eskom will notify the Contractor, so that planning can be done.
- If an outage related defect is known, spares must be identified by the Contractor and made known to the Employer, so that the Employer can procure or reserve immediately, when an unplanned outage happen the situation can be addressed.
- The Contractor should be flexible for Hot and Cold Commissioning as well as first phase optimisation. There are things that need to be attended to after all down time of Units and in a much broader band after an outage.

1.2.4 Cabling

- The Contractor shall be responsible for cabling by pulling in and out of new cabling which is C&I related and termination from a Junction box, Cubicle to the instrument or Local control panel. The Employer will supply all cables required and the Contractor shall execute the activity at no extra cost.
- The Contractor is responsible for all aspects of C&I cable related matters and is not limited to the following:

- Staffing and staff management
- Work/task planning and co-ordination
- Removal and installation supervision
- Cable fault locating and replacement
- Fibre optic single & multi-mode cable installation
- Cable routing including identifying new routes in the case where cables may have got damaged either by fire or any other external cause.
- New cable installation and loop checking to ensure that the new installation is up to standard and there are no faults.
- Conducting fault finding in conjunction with the Employer technicians in the case where commissioning of the newly installed cables failed or is not fully operational
- Laying and racking of new cable installation
- Installing C&I instruments, especially where the installation involved instruments that may have been damaged by external causes. The Employer will provide instruments to be installed by the Contractor.
- Maintaining records and statistics
- Ensure compliance with legislation and national standards
- Ensure compliance with Eskom policies and procedures

1.2.5 Spares Management

- The Employer will supply all the spares needed by the Contractor to execute the scope at hand.
- The Contractor in conjunction with the Employer shall identify critical spares and submit a list detailing them. When identifying the spares, the Contractor shall keep in mind the need to minimise production risk due to spares availability, and also the need to avoid wasteful expenditure of public funds in terms of PFMA by holding too many spares than is necessary. The risks involved shall be listed with appropriate solutions. This action should be a joint effort between Contractor and the Employer.

1.2.6 Workshops and Test Equipment

- The power station Electrical department is responsible for all 220V AC supply; this includes the work area that has been allocated to the Contractor (i.e. Workshops).

- The Contractor will share a Workshop with The Employer employees.
- The contractor to keep the list of all their tools register including portable electrical equipment up to date. All tests done by the Contractor must be done according to Eskom regulations and standards, both the Contractor and Eskom must have copies of such as proof of the tests for filling.
- Eskom will provide test equipment. The equipment is seen as the property of Eskom. The Contractor will maintain and keep it in good working state, any losses or damages of such equipment shall be on the Contractor's costs. Any theft of such equipment should be reported to the Eskom personnel as well as to the Eskom security service within 24hrs of realisation for formal investigations to be done, all negligence declared cases shall be on the Contractor's account.
- Test equipment should be checked and tested frequently by the Employer, according to Eskom standards and sent for calibration at a national accredited source (SANAS), the Contractor to give a list of all test equipment which will expire every 3 months before their expiry date for calibrations, failure to do so, a monetary penalty shall be charged to the Contractor which will be negotiated as that might have a production loss implication.
- The Contractor is responsible for the repairs on test equipment whereby its employees made the damages.
- The Contractor may bring any other test equipment that the Contractor believes that his/her employees might need besides the ones provided by the Employer.

1.2.6.1 Tools list – per person

NO	DESCRIPTION	QTY
1	Toolbox/Tool bag	**1**
2	Auma Valve Tool set (different sizes)	**10**
3	Digital multimeter (Fluke 177)	**1**
4	Set of Combination Spanner (7,8,10,11,12,13,15,16,17,18,19,21, 22 & 23)	**14**
5	Set of socket spanners (7,8,10,11,12,13,15,16,17,18,19,21,22 & 23)	**14**
6	Universal joint	**1**
7	Extension bar	**1**
8	Sliding T bar	**1**
9	Ratchet	**1**
10	Adjustable (shifting) spanners (6'' 8'' 10'' 12'')	**1**
11	Set of Flat Screwdrivers	**2**
12	Set of Phillips screwdrivers	**2**
13	Set of Imperial and Matrix Allen Keys	**10**
14	Set of Torx Keys	**6**
15	Wire stripper	**1**
16	Pump plier	**1**
17	Vice grip	**1**
18	Stillson/Pipe wrench	**1**
19	Crimper	**1**
20	Cable knife	**1**
21	5 Cable knife blades (Spares)	**5**
22	Combination pliers	**1**
23	Side cutter pliers	**1**
24	Long nose pliers	**1**
25	Measuring Tap	**1**
26	Jewellery/precision screwdrivers	**10**
27	Junior hacksaw	**1**
28	Steel rule	**1**
29	Ball pen hammer 500g	**1**
30	Smooth files	**1**
31	Head lamp	**1**

NB: Tools monitoring will be done every month, Should the employee loose the tools its their responsibility to replace them. At the end of the contract the tools remains the Assests for the section

1.2.7 Standby

- The Contractor's Standby crew is to be available at all times (24 hrs 7days a week). The Standby crew is to be competent on the plant and authorized to act as Responsible Persons on permits and be able to carry out simulations. The Contractor is to decide when help is needed from specialised crew and should have no effect on production.
- The Standby crew's reaction time in emergencies should be as quick as possible (not more than 90 minutes). The Contractor will provide the Employer with a standby roster with the contact details of the person on standby on monthly basis and this shall be accepted by the Service Manager
- Call-Outs are initiated via Electrical Operators Desk (EOD) and any other Employer's employee if so authorised by the Service Manager.
- A breakdown report must be completed by all those Contractor employees that have been called out and this must be done before departing site during callouts and furthermore such report must be shared will all in a C & I section group formed to give such feedback before 06H25 daily. Addition to that all work done during after-hours the work order to be submitted before leaving site
- Contractor Project Manager is not entitled for overtime payment, if there is any urgent work/callout that require their presence such work/callout shall be done free of charge.

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
AC	Alternating Current
AU	Automation Unit
AWR	Ash Water Return
C&I	Control and Instrumentation
CCTV	Closed Circuit Television
CW	Cooling Water
DC	Direct Current

Abbreviation	Meaning given to the abbreviation
DCS	Distributed Control System
EMDAS	Electrical Metering Data Acquisition System
EPKS	Experion Process Knowledge System
ES	Engineering Station
FFP	Fabric Filter Plant
F/O	Fuel Oil
GO	General Outage
GPS	Global Positioning System
H_2	Hydrogen
ITP	Inspection and Test Plan
LAN	Local Area Network
LCS	Local Control Station
LV	Low Voltage
MV	Medium Voltage
MNT	Maintenance
OBL	Outside Battery limits
OEM	Original Equipment Manufacturer
OHS	Occupational Health and Safety
PA	Public Address
PFMA	Public Finance Management Act
PHD	Plant Historian Database
PIS	Plant Information System
PLC	Programmable Logic Controller
PSR	Plant Safety Regulations

Abbreviation	Meaning given to the abbreviation
QCP	Quality Control Procedure
RTD	Resistance Temperature Detector
RTS	Return to Service
SAP	Systems Applications and Products
SFPT	Steam Feed Pump Turbine
SHEQ	Safety, Health, Environment, Quality
SOW	Scope of Work
SU	Storage Unit
SW	Switch
SWG	Switchgear
TX	Transmitter
V	Volt
WTP	Water Treatment Plant

2. Management strategy and start up.

2.1 The *Contractor*'s plan for the *service*

The *Contractor*'s plan for the Services is in line with Employers requirements for service as stipulated above under 1.2 Employers requirement for service

2.2 Management meetings

Regular meetings of a general nature may be convened and chaired by the Service Manager, or his/her delegate as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Quarterly Contract Meeting	Quarterly, date and time to be communicated after the Kick-Off meeting		*Employer*, *Contractor* and any other representative as

		Grootvlei Power Station	agreed during Kick-Off meeting
Kick-Off	Once-off when contract starts		*Employer*, *Contractor*
Quarterly Safety meeting	Quarterly		*Employer*, *Contractor* and any other representative as agreed during Kick-Off meeting

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

All meetings shall be recorded using minutes or a register prepared and circulated by the Service Manager, or his/her delegate. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

2.3 *Contractor*'s management, supervision and key people

The *Service Manger or the person delegated by the Service Manager* will be responsible for managing all Contractors' employees responsible for this contract on site.

Should the scope of work execution capacity be reduced the number of the resources will be proportionally reduced through engagement of both parties and agreeing on the new staff compliments. The Employer will be required to schedule the meeting with the Contractor and give the Contractor one month notice after both parties have agreed on the issue.

2.4 Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Service Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer*'s right to termination stated in this contract.

2.5 Documentation control

For all systems and the Affected Property on which services will be performed Employer will own, and make available to Contractor upon request, all relevant OEM drawings, as-built drawings and manuals. The Employer will at all times retain ownership of the master copy of such documentation and will control its update and replacement with new revisions subject to the Employer's internal document management procedures.

Communication with Employer

- Liaise with the work scheduler to ensure that high priority jobs get preference over normal planned work
- Liaises with the originator of the deviation(notification) to get a clear understanding of what is required to minimise delays and prevent rework.
- Minimise delays and prevent rework.
- Ensure compliance with the grid code requirements.
- Maintain records and statistics relating to installed Honeywell Systems.
- All plant records are the property of the Employer.
- The Employers documentation centre is available for information to the Contractor.
- Identification of the equipment on which the preventive maintenance carried out shall be provided like date of PM & next due on the equipment

2.6 Management of work done by Task Order

- The Employer will issue a list of Task Orders (12) in writing at the beginning of each year before the first task is performed. Further Task Orders will be issued every 12 months
- The Supplier must accept the Task Orders by signing it and returning a copy thereof to the Employer.
- On the 25th of each month, an assessment will be carried out to verify the completion of the tasks as per the Task Order
- The Supplier can then create an invoice to the Employer and send it directly to Finance Department - APS section, to facilitate payment
- All work done is valued in accordance with the Price List unless otherwise specified
- Actual quantities will be determined where applicable based on the requirements of each Task Order
- The Contractor provides all necessary information required by the Employer to determine the cost at the assessment date for monthly costs and for each Task Order

- On-time and accurate invoicing is required as such timesheet data should be submitted to Contract Supervisor for acceptance by 25th of each month, subsequent invoice should be issued within 1 day of receiving Employer's acceptance.

2.7 Invoicing and payment

Within one week of receiving an assessment certificate from the Service Manager/ Contract Supervisor, the Contractor provides the Employer with a tax invoice showing the amount due for payment equal to that stated in the Service Manager's/ Contract Supervisor's assessment certificate. No payment will be made on tax invoices not fully meeting the requirements. Invoices must be submitted to:

Eskom Holdings SOC Limited

Grootvlei Power Station

Accounts Payable Section (APS)

Private Bag X

Grootvlei

2024

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and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager.*
- The contract number and title.
- *Contractor*'s VAT registration number.
- The *Employer*'s VAT registration number 4740101508.
- Description of service provided for each item invoiced based on the Price List.
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.
- A Task Order number as supplied to the *Contractor* at the beginning of each year.

2.8 Insurance provided by the *Employer*

Insurance provided by the Employer is as indicated under number 8 (Risk and Insurance) of the Contract Data

2.9 Training workshops and technology transfer

The *Contractor* employees will be trained during the Job Specification Induction training that will be provided by the *Employer* at the beginning of the contract. The *Contractor* employees may also be trained during Work Stoppages and any other training as per *Employer*'s requirements.

The following will be provided by the *Employer* to the *Contractor* employees and will be on the account of the *Employer* only on first attendance of which should the *Contractor* employees fail the training, the *Contractor* will be accountable and responsible for the account

The *Contractor* employees are expected to have been trained on the below training, and any other training relevant to the service to be rendered by the *Contract* etc not limited as any other training that the Employer will deem necessary for the Contractor to perform service

- Working at Heights
- Plant Safety Regulations - the Contractor employees are to be authorised in terms of PSR.
- Limited Access Register
- FFFR
- Simulation training on Honeywell system and competency test before rights are given
- Flip access
- Actuators (AUMA training will be advantageous) at Contractors cost
- IBI

The contractor to submit the training Matrix (technical) for their employee within 6 months from the start of the contract and progress monitoring of attendance to be tracked every quarterly meeting including the SHEQ related trainings

2.10 Design and supply of Equipment

The Contractor shall provide all equipment needed by its employees to fulfil the service required by the Employer and such equipment must be declared with Protective Services and records be kept while such equipment is in use on the Employer's Affected Property. All equipment that get lost during service must be reported with Protective Services at the earliest possible time and be

recorded in the Contractor's weekly report and such equipment must be replaced at the Contractor's account unless if it was lost by the Employer's employees of which then it should be replaced by the Employer.

3. Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The *Contractor* must comply with the requirements of Occupational Health and Safety Act (85 of 1993) or OHS Act (85 of 1993)

In addition, the Contractor must adhere to the following requirements:

- The contractor is responsible for the procurement of PPE and equipment in accordance with the OHS Act (85 of 1993) and site-specific requirements, including the use thereof as necessary.
- The Contractor shall always comply with the health and safety requirements prescribed by law as they may apply to the services.
- The Contractor shall upon entering Grootvlei Power Station, abide by the Life Saving Rules. These will be provided by the Employer at the start of the contract.
- The Contractor shall ensure that all the documents required by SHE specification GVL 0328 check list are in place on the contract start date
- The Contractor will report any incident and accidents to Grootvlei Power Station within 24 hours. This report does not relieve the Contractor of his legal obligation to report certain incidents to the Department of Labor, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.
- The Contractor implements and submit a safety plan which complies to safe working procedures, and it must be approved by the Employer before the contract start date.
- Before work starts on site, a meeting is held with the Contractor and the Service Manager to explain all requirements of the Site Regulations.
- The Contractor shall conduct a task risk assessment prior to commencement of any task and shall ensure that a PTW is issued where applicable or Limited Access Register is completed before any work commences.
- The Contractor to conduct job observation and continuous risk assessment throughout the duration of a task.

- The Employer has the right to stop the Contractor's work activities which, in the opinion of Employer, is un-safe. The Contractor may only continue with work activities when all safety deficiencies have been corrected to the Employer satisfaction. The Contractor shall have no claim against the Employer in respect of delay due to the above.
- The Contractor will be subject to periodic audits by the Employer in order to ensure compliance with the plan. Any deviations will be corrected to the Employer's satisfaction.
- The contractor shall be required to compile the reports which is in line with SHE Incident Management Procedure (32-95) Rev 9 and submit it to Employer incise there is an incident involving their employees and also applicable to this contract

3.2 Environmental constraints and management

- The *Contractor* must familiarise themselves with the waste management policies and procedures (240-28981069 and 240-29828394 respectively) within 14 days from date of contract awards and must comply with the environmental criteria and constraints stated in the policy document. The requirements include the identification, collection, storage, transportation and disposal of waste. Hazardous waste shall be disposed of in line with the applicable environmental legislation. It is important to note that all spillages must be cleaned immediately and reported to the *service* manager as soon as possible. It is the responsibility of the polluter to clean all spillages and for the rehabilitation of the polluted land and the cost associated with that.

3.3 Quality assurance requirements

- The *Contractor* implements a quality system and maintains the quality system until the completion of the whole of the Works. The system will comply with the provisions of the ISO9001 and the Eskom Supplier Contract Quality Requirements Specification (240-105658000). The system will be to the *Employer's* satisfaction and will be accepted prior to the commencement of any work on site.
- The *Contractor* is responsible for defining the level of Quality Control Plan (QCP) or inspections to be imposed. The level should be based on the criticality of plant and material and must be submitted to the Service Manager for acceptance prior to the commencement of any work activities.
- The *Contractor* compiles a data package of relevant drawings, test certificates, design checks and other technical information for each section of work or Task Order which is to be reviewed and signed off by the Supervisor or Employer Representative.

- The *Contractor* will be subject to periodic audits by the *Employer* in order to ensure compliance with the system. Any deviations will be corrected to the Employer's satisfaction.
- The Service Manager has the right to stop the Contractor's work activities which, in the opinion of Service Manager, does not meet the requirements of the system and will have a detrimental effect on plant performance.
- The *Contractor* may only continue with work activities when all deficiencies have been corrected to the *Employer's* satisfaction. The Contractor shall have no claim against the *Employer* in respect of delay due to the above.
- The Contractor ensures that all plant and materials for the Works are to the standard and quality accepted by the Employer and ensures that they are suitable for the purpose intended by the manufacturer.
- The *Contractor* will work according to the *Employer's* standards, specifications, guidelines and procedures. Where no standards, specifications, guidelines and procedures are available, the *Contractor* will work according to the Generation Quality manual and professional guidelines. Where possible, standards will be reflected in the Task Order.
- The *contractor* will ensure that they facilitate effective and efficient management of an incident from the moment it occurs, until it can be audited and mitigated.

4. Procurement. The requirements for the people employed

4.1 People

Minimum requirements of people employed

- The Contractor will provide 32 resources which will be in line with the following minimum specified qualifications as per a SAQA standard:

- 1 X Project Manager to have National Diploma and Management related experience - 3 years

- 1 X C & I Supervisor required to have National Higher Diploma Electrical (light current, Control and instrumentation) and 5 years' experience in Power Plant

- 2 X C & I Senior Technician required to have National Diploma Electrical (light current, Control and instrumentation and 4 years' experience in Power Plant

- 1 X Safety officer required to have Diploma Safety and 2 years' experience in Power Plant

- 13 X C&I Technician is required to have National Diploma Electrical (light current, Control and instrumentation) and 3 years' experience in in Power Plant

- 1 X Contract Administrator required to have matric, computer certificate and Admin/ Secretary certificate

- 12 X Utility man (as an when required) – to be recruited locally – Dipaleseng

  All the above qualifications will be verified in the beginning of the contract and yearly and on as and when required basis as well as when a new employee replaces another employee on the contract.

The Contractor will be required to submit CV's and qualifications to the Employer to verify their authenticity before hiring or replacing their Employees.

The Contractor is expected to pay its employees as per labour rates.

Resources allocated to site are required to provide evidence of security clearance

4.2 Plant and Materials

4.2.1 Specifications

All spares will be provided by the Employer.

4.2.2 Correction of defects

All repairs to be done using procedures/OEM manuals.

4.2.3 Contractor's procurement of Plant and Materials

All spares will be provided by the Employer. The contractor employees to advise the Employer about the latest spares availability whenever they draw the spares from warehouse for monitoring purposes

4.2.4 Tests and inspections before delivery

N/A

5 Working on the Affected Property

Under no circumstances will the Contractor do the work without proper PPE and contractor to have permit to work. The Supervisor or Safety officer on the Contractor's side will make it his duty to make sure that this is properly addressed

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

Access to site

The Contractor's access to site shall be in line with the Grootvlei Power Station's access procedure. The Contractor shall be required to make an application for his employees to enter site for the duration of the contract, including defects period. The permits shall only be issued once the Contractor's employees have attended the safety induction training and have undergone medical checks. The safety induction will be for the Employer's account. The medical checks will be for the Contractor's account. The Contractor's employees will also be expected to attend IBI training, which is offered by the Employer. The Employer pays for this training.

If any of the Contractor's employee is transferred from Grootvlei or is leaving the Contractor's employment, the person's permit is handed over to the Employer's security office.

No firearms, weapons, alcohol, illegal substances and cameras (encluding camera phones) are permitted on Site. Any person suspected of being under the influence of alcohol is tested and if proved positive, is refused entry through the security area.

The Contractor provides security necessary for the protection of the works at all times until the completion of the whole of the works.

The Contractor is informed of the access procedures through Site Regulations and note that such procedures may change depending on the prevailing security situation.

All persons entering the Grootvlei site pass through the control points at the main access gate and are required to have temporary permits that are issued to Contractor 's staff on request. All persons submit ID documents with the application for temporary permits. If it is necessary to bring equipment onto site a list is submitted which is verified by security staff prior to equipment entering the security area.

All the assets must be declared and registered with security upon entering site. This includes portable assets such as a laptop. The record must be kept on the OV28 form. No asset shall be removed from site if the OV28 form is not attached.

The Contractor shall have no claim against the Employer in respect of delay at the security main gate.
No “private work” is carried out for or on behalf of any Eskom employee.

The Contractor makes his own assessment of and allows in his rates for those access problems that may be encountered. No extra payment or claim of any kind is allowed on account of difficulties of access to the works, or for the requirement of working adjacent to or in the same area as others.

Site Regulations

- The Contractor’s employees will be required to abide by the Life Saving Rules. These will be issued by the Employer to the Contractor, at the beginning of the contract.
- A maximum speed limit of 40km/h on site must be adhered to at all times.
- All Contractor’s access permits must be returned to Protective Services at the end of the Contract

People restrictions, hours of work, conduct and records

The Contractor shall keep records of his employees working at Grootvlei Power Station. The Contract’s Manager shall have access to them at any time. These records may be needed when assessing compensation events.

Employer’s Working Hours
The normal working hours are as follows:
Mondays – Thursdays: 07h15 – 16h30.
Fridays: 07h15 – 12h15.
Lunch breaks are 30 minutes from 12h00.

The Contractor is required to stick to the Employer’s working times. The Contractor shall then provide the captured working hours including overtime and submit it to the Employer for payment on the monthly assessment day.

5.2 Cooperating with and obtaining acceptance of others

The Contractor shall cooperate with Grootvlei personnel including Safety and Auditing personnel as and when required.

5.3 Records of Contractor's Equipment

If it is necessary to bring equipment onto site, a list is submitted which is verified by security personnel prior to equipment entering the security area.

All the assets must be declared and registered with security upon entering site. This includes tools, test equipment, portable assets such as a laptop, etc. The record must be kept on the OV28 form. No asset shall be removed from site if the OV28 form is not attached.

The Contractor's Service Manager should keep record of all the equipment used by the Contractor. The Contractor is responsible for the safekeeping of all their equipment

5.4 Site services and facilities

Provided by the Employer

Electricity

All points of supply requested by the Contractor are provided in terms of quantity and location at the discretion of the Service Manager

No connection is made to the permanent installation at the Power Station without the prior acceptance of the Service Manager

The Employer guarantees power supply quality and reliability. No guarantees of power supply quality are given, and power supply outages of some duration may occur without warning. Planned outages are also a possibility.

220Volts and 380Volts power source will be available near the off-terrace site area. It is the Contractor's responsibility to connect to this power source and obtain statuary Certificate of Compliance for such a connection or installation.

All installations or equipment connected to a supply of electricity provided free of charge by the Employer shall comply with all relevant safety regulations and requirements. Failure to comply with the safety requirements may lead to immediate disconnection.

Compressed Air

Compressed air is available for the Works. The variation of pressure in the air supply and or breakdown in the supply shall not be grounds for an extension of time or compensation if it causes a delay.

Ablution facilities

The Employer shall provide ablution facilities to the Contractor.

Telecommunications

Two-way radio for communication with the Employer.
An office landline for job related calls
Any outside calls will be on the Contractor's account.

Roads

Main access roads are surfaced and complete and may be used by the Contractor with the necessary care. The Employer maintains the site roads, described above, to a fair condition. Any costs incurred by the Service Manager from damage caused to underground services, structures and the like as a result of the Contractor not using the prescribed routes, is recovered from the Contractor.

Provided by the Contractor

The Contractor provides Transport including Site vehicle and Tools & equipment for all his employees engaged in the execution of the Works.

Medical Facilities

The Contractor provides, at his cost, a First Aid box to his employees to be used during minor injuries. In the case where these prove to be inadequate, like in the event of a serious injury, the Employer's Medical Centre and facilities will be available.

6 List of drawings

Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Drawing number	Revision	Title