

Document reference	Title	No of pages
	The provision of maintenance and engineering service on the Turbines control and protection systems installed at Grootvlei Power Station on an “as and when” required.	
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C3.2	<i>Contractor’s Service Information</i>	
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C3.1: EMPLOYER'S SERVICE INFORMATION

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1 Description of the service

1.1 Executive overview

The *Contractor* is expected to provide maintenance and engineering services on the turbine control and protection system at Grootvlei Power Station.

The services required include but not limited to the following services mentioned below:

1.2 Employer's requirements for the service

The *Employer's* objectives for this contract include:

- Maintaining and improving the efficient operation of its turbine control systems;
- Encourage a long-term commercial relationship with the Contractor based on mutual trust, commitment to goals and an understanding of each party's expectation and values
- Ensure the application, implementation and development of appropriate maintenance policies and updating of maintenance techniques;
- To ensure that the Contractor shall provide adequate resources capabilities to support the Employer's objectives. The Contractor shall develop contingency plan to mitigate the risk associated with resources skill availability
- To ensure that the Contractor shall provide personnel who have knowledge, skills, experience and competency on Power Generation process in order to provide service required by Grootvlei Power Station.
- To ensure that the Contractor shall effectively transfer skills to The Employer's staff.
- Ensure that the Contractor compile the assessment report on the 25th of every month and discuss it with the Employer
- Ensure that the Contractor submit the invoice, reflecting assessment date, of the agreed amount before the 28th of every month.

1.3 Technical advisory services

The *Contractor* will provide turbine protection and control systems maintenance support at Grootvlei Power Station. A C & I technician dedicated to Grootvlei Power Station will provide the service. On the high-level work, the *Contractor* will be required to consult specialist to seek advice on engineering matters, including the following:

- Identification of technical problems.

- Solution of technical problems.
- Repair methods and maintenance philosophies.

The *Contractor* is required to provide the technical support, advice to *Employer* for control systems related fault and abnormalities as and when required. It is the requirement of this contract that the *Contractor* undertakes activities in terms of this contract to design, perform modifications, inspect and or repair controls and protection systems for turbine and or auxiliary plants in accordance with the appropriate design standard and codes of practice.

The *Contractor* provides the *Employer* with the information on the latest engineering design and developments that may improve the plant design to the benefit of the *Employer*.

1.4 Maintenance service

- Working alongside with Eskom C&I maintenance personnel performing the corrective and preventative maintenance activities and execute them in accordance
- Perform calibration on all the field devices (related to turbine centreline) in accordance with the Employers standards
- The supervision of maintenance activities to ensure quality and productivity targets are achieved.
- The development of work instructions and procedures for maintenance activities
- The development of bills of material for maintenance activities
- Perform first line investigation and diagnosis of the plant deviations to determine what work is required.
- The Contractor will be required to perform maintenance of the turbine protection and control systems by availing himself for the entire week once a month, to ensure the system is still reliable and performing as per expectation.
- The Contractor will be required to perform maintenance of the turbine protection and control systems during outages. This applies for both planned and unplanned outages. In such an event, if additional resources are required, the Contractor will notify the Employer and both parties will agree the number of resources.
- Perform faultfinding and replacement of appropriate modules or equipment on the system.
- The planning scheduling and recording of all plant history is done by the Employer's planner via Employer's SAP system

1.5 Service Provider (where applicable, will provide engineering service)

The contractor's responsibilities towards the *Employer* are as but not limited to the following:

- Development of maintenance strategies and plans.
- Perform incident investigation and determine the root cause analysis in according to SA labour law. These are applicable to all trips and other investigations. The Contractor shall be available to perform investigation for unit trips when needed
- The notification of all failures not attributing to normal wear, and or frequency / repeated failures of the components.
- Compile data for technical plan and life of the plant plan.
- Advice to compile outage scope of work applicable to this contract.
- Compile the list of outage spares and assist the Employer in sourcing spares in time.
- Liaise with system engineers in investigation, design and execution of modifications, which are applicable to this contract.
- Assist with compilation of the spares management strategy applicable which is applicable to this contract.
- Optimise control system, applicable to this contract.
- Compile operation instruction applicable to this contract.
- Optimise the operation instruction to enhance the smooth operation of the plant.
- Perform protection test as when required.
- The Contractor will be required to analyse plant or equipment history on SAP, review and update the maintenance strategies accordingly.
- Compile reliability-based optimisation (RBO) plans for all turbine control and protection equipment.
- Support all initiatives on site aimed at improving plant safety, reliability and availability.
- Advice the Employer on good engineering practices to improve plant performance and ensure long plant health.

2 Plant for which service is required

- Main turbine control and protection system including instrumentation as delivered commissioned and handed over according to Eskom contract
- OPC for process control: The Contractor may be called upon to provide technical assistance on the other plant areas not listed above where this advice falls within the Contractors areas expertise. Where the Contractor is unable to accurately conduct a

risk assessment of any technical advice provided, this should be brought to the Employers attention to highlight the possible risk involved with the implementing such recommendation.

3 Deliverables

The *Contractor* maybe asked to perform any or all of the following services in connection with the contract:

3.1 General requirement applicable to all *Contractor* employees

Provide advice to the *Employer* in order that the following to be executed.

- Approve and/or compile technical specifications for plant operation and maintenance.
- Quality control advice within the preferred Contractors or Employers QA procedures for general overhaul and plant inspections.
- Co-ordinate plant re-commissioning in conjunction with other Contractors.
- Assist with compiling technical specifications.
- Carry out ad-hoc audit reviews of operation and maintenance practices and report any deviations to the Employer.
- Provide detailed reports to Employers representatives when requested to do so.
- Attend all meetings as deemed necessary by the Employer.
- Provide service matrix on the turbine and commissioning functions.
- Develop training material on pre-determined list of topics as and when required.
- the Contractor will be required, where practical, to provide hands on training for the Employers staff whenever maintenance or engineering work is carried (i.e. Eskom should be permitted to act as observers of the work being performed and also, where necessary, be given the opportunity to gain hands-on experience of the type of maintenance being carried out).
- Provides all necessary, data and historical records required to ensure the performance of the required services.
- Provide information/input to the Employer for the Life plant (LOPP).
- Monitor plant performance on a continuous basis and advise the Employer on methods to optimize the working life of plant.
- Report and monitor repair time and quality of any plant problems detected.
- Provides Employer with relevant information on failures and breakdowns of similar plant supplied by the Contractor to other utilities.
- Investigate and report on turbine occurrences as requested by the Employer.

3.2 Outage Related Activities

During the course of an overhaul (planned outage), or during breakdowns (unplanned outages) and repairs, the *Contractor* will provide the following:

- Revision, monitoring and updating of relevant documentation to ensure correct application of operating and maintenance procedures.
- 3Monitoring of turbine plant performance, particularly prior to and following shutdown and general overhauls in conjunction with the Employer.
- Observe deviations from recommended procedures and good practices applicable to operation, maintenance, and report to the Employer.
- Determination of the maintenance requirement and the scope of work, prior to general overhaul; and specialist services required from the Contractor.
- Advice the Employer on the spares handling by identifying spares to be held in terms of quantity and quality, to support planned overhauls and other maintenance activities.
- Compiling and issuing the final outage report.

Note: for planned Outage:

The *Contractor* will be notified in writing of all planned outages at least one month in advance before commencement of such outage by the *Employer* so that the *Contractor* can arrange for back-up manpower in the event the services of the back-up manpower is required for whatever reasons (i.e. to replace someone who maybe off sick, or for any other legitimate reasons without negatively affecting the outage). The *Contractor* requires a maximum of 2 days replace someone who may feel sick during planned outage to ensure continuity of the work planned for the outage.

3.3 RTS Commissioning Related activities.

The *Contractor* will be required to perform activities related to return to service. The activities will include but no limited to the following activities:

- Installation of all field instruments and equipment's that are associated with main turbine centerline control and protection, stress monitoring supervisory and on-line vibration conditioning monitoring systems.
- Protection checks of field equipment's and instruments.
- System configuration.

- Stroking of hydraulic valves (ESV's and Governor Valves).
- Engineering support to achieve turbine barring milestone.
- Engineering support to achieve Turn on Steam (TOS) milestone.
- Engineering support to achieve Sync milestone.
- Optimization and capability related to turbine control
- Checking of active simulations
- Maintain engineering interface with third party systems.
- Provide documentations (Test results, and inspections paper work (signed off IC paperwork).
- Clearance of outage defects

Note: these activities may require additional resources to be deployed, subjected to availability.

4 Reporting

The *Contractor* shall submit reports to the *Employer* monthly and on as and when required basis.

The report shall include amongst others the following:

- Risks to production and long-term plant health
- Comments on the technical status of the units
- Recommendations for performance improvement
- Defects
- Operating history
- Spares recommendations
- Safety related issues and
- Progress on Preventative Maintenance.

A report shall be submitted specifically for all planned and unplanned outages. The Contactor and Employer will agree upon the submission dates for these reports and it will change from time to time. The report shall include at minimum:

- Quality control issues and documentation
- Recommendations on refurbishments
- Spares recommendations
- Any other issues to take note of for future

5 Suitability and technical ability of staff

The *Employer* reserve right to reject any *Contractor's* employees for any reasonable cause even though the employee had previously been suitable for work performed under the contract.

Note: the possible rejection of any *Contractor* employee will need to be discussed and agreed with the *Contractor* before rejection accepted by *Contractor*. The *Contractor* will try to find a suitable replacement. If unsuccessfully, the *Contractor's* obligations to the Contract may be terminated.

6 Workshop and equipment

- Specialised equipment (laptop) which may be available at Grootvlei Power Stations (C & I Maintenance) will be provided by the Employer to the Contractor.
- All test equipment that belongs to the Employer, that are handed to the Contractor will stay the property of the Employer, but the Contractor is responsible for the maintenance, safety, calibration and repairs if required
- The Contractor will be responsible for the safekeeping of any such equipment, its protection against damage or misuse, and its replacement if damaged for the period that it is in the Contractor's possession.
- The Contractor will be required to sign acceptance letter verifying all the equipment's received. The workshop will be audited on frequent basis to determine compliance to all requirements and to verify availability of all equipment.
- All test equipment used by the Contractor should comply with legal requirements

7 Receivables

The *Employer* shall undertake to provide:

- Workshop, lockable office space with LAN connection.
- Drawings, control and operating philosophies and any other pertinent information required by the Contractor in order to provide the Services as per the contract requirements

8 Exclusion

- All maintenance on field instruments which are not applicable to turbine control and protection system

- Distributed Control system (DCS) and its associated equipment.
- Maintenance of any other plant

9 Spares management

9.1 Critical spares (Priority 1 spares)

- These spares are critical to production and the safe operation of the system.
- Both the Employer and the Contractor identify these spares and the Employer does the procurement thereof. The spares will be stored at the Employer's premises, where they are available to the Contractor's as and when required.
- The Employer will provide safe storage and control the movement of these spares. The Contractor will be required to advise the Employer on the storage requirements for the critical spares.

9.2 Consumable spares

- Both the Employer and the Contractor identify these spares and the Employer does the procurement thereof.

10 Call outs

- The service provider is required to respond to supervisors/Engineer call within 2 hours and organize their technicians within 24 hours. Note – that the contractor maybe called for telephonic assistance by Employer as and when required within reasonable limits

11 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
C&I	Control & Instrumentation
PTW	Permit To Work
PPE	Personal Protective clothing
SHEQ	Safety, Health and Environmental Quality
IBI	Integrated Business Improvement
TSC	Term Service Contract
NEC	New Engineering Contract
SAQCC	South African Qualification and Certification Committee for fire industry
NFPA	National Fire Protection Association Codes and Standards

12 Management strategy and start up

12.1 The Contractor's plan for the service

The Contractor's plan for service is in line with the Employer's requirements for service as stipulated under (1.2 Employer's requirements for the service) above.

12.2 Management meetings

The *Contractor* shall meet on a monthly basis with the *Employer* on the date that will be agreed upon contract 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 person convening the meeting within ten 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 person who convened the meeting. Such minutes or register shall not be used for confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Overall contract progress and feedback	Monthly on last Friday of the month	Grootvlei Power Station	<i>Employer and Contractor</i>
Maintenance and repairs undertaken	Monthly on last Friday of the month	Grootvlei Power Station	Eskom Employees and <i>Contractors</i>
Breakdowns	Monthly on last Friday of the month	Grootvlei Power Station	Eskom Employees and <i>Contractors</i>
Inspection findings	Monthly on last Friday of the month	Grootvlei Power Station	Eskom Employees and <i>Contractors</i>
Incidents	Monthly on last Friday of the month	Grootvlei Power Station	Eskom Employees and <i>Contractors</i>

12.3 Contractor's management, supervision and key people

- The Contractor complies with all site regulations issued by the Employer.
- All work 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.
- Some of the scope listed is dependent on unit outage or cold reserve, and may be planned or unplanned. It is therefore necessary to note that the works maybe performed as and when required or depend on the state of the plant.
- The Employer must approve all subcontractors. If the Contractor is uncertain of the approval status of the vendor, the Contractor must formally request conformation from the Employer. Preference will be given to subcontractors that meet SMME/BBBEE/BEE/BWO status on the Employer's vendor list.
- The Contractor does not procure the service of the subcontractor without prior written of the Employer.
- All information acquired by the Contractor during this contract for the works above becomes the property of the Employer at the end of the contract.
- The technician(s) must be available for the full working day as based on Grootvlei Power station working time (07H15 to 16H30 Monday to Thursday and 07H15 to 12H15 Friday) – one entire week every month
- Note - that the Contractor maybe called for telephone assistance by Employer as and when required within reasonable limits
- Technician(s) to attend the relevant outage and or planning meetings include the daily morning C&I section meeting of the Employer while on site
- The Contractor may use any Equipment fit for the purpose as long as the use thereof does not damage or interfere with any Plant, buildings or roads. All equipment used shall be in good order and comply with all the relevant safety rules and regulations.
- The Contractor and his employees are required to conduct themselves at all times in a proper and orderly manner while on the Employer's premises. Eskom code of Ethics applies
- The Contractor is required to clean and remove any debris and rubble arising from any work done under any agreement originating from this Contract to ensure that the Employer's premises are left in a clean condition after doing any work.
- The Contractor and its employees required to work onsite must first obtain the required access permit for site before commencing any work. This is obtained by completing a

site specific induction, medical and associated paper work. No vehicles will be allowed access to site unless this has been pre-approved by the Project Manager / Risk and Assurance Manager and a valid permit for vehicle access has been issued.

- Eskom has embarked on Integrated Business Improvement (IBI) principle for their project activities, the Contractor shall be required to attend the available course at the Employer's premises at the Employer's cost.
- The Contractor will be required to be authorised to work on the red zone area.
- The Contractor will be required to support Reliability Base Optimisation (RBO), Integrated Risk Management (IRM) and works management implementation.
- Only parts that meet the original manufacturer's requirements shall be used.

12.4 Documentation control

The *Contractor* shall provide all documents as requested by *Employer*, e.g. completed Task Orders, assessments reports, risk assessment, medical certificates, etc.

12.5 Invoicing and payment

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

The *Contractor* shall address the tax invoice to :

Eskom Holdings Limited, Grootvlei Power Station, Accounts Payable Section, P/Bag X, Grootvlei, 2420, 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;
- *Contractor's* full banking account details,
- 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;
- (add other as required)
- Purchase order number
- Invoice number

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

12.6 Contract change management

It will be discussed as the need arise and both parties must agree with the proposed change. Then the addendum must be compiled and approved by adjudication committees

12.7 Records of Defined Cost to be kept by the Contractor

The employer has the right to request the records of defined costs

13 Training workshops and technology transfer

13.1 On the job training

The *Contractor* will provide the on job training for the *Employer's* staff as per agreed schedule without compromise to the plant. The purpose of the training will be to familiarise the *Employer's* staff to provide the basic system operating knowledge. The *Contractor* will be required to continuously train the *Employer's* staff for the contract duration provided the Employees to be trained are available.

13.2 Formal training

The *Contractor* agrees to design and deliver the formal Turbine centreline control and protection training to *Employer* according to a mutually agreed requirement and or programme

Note:

A formal training programme will be agreed upon in the first month of the contract coming into force. Every 6 months progress will be assessed and available skills certified.

The purpose of the training will be to familiarise technical staff with different systems and provide the necessary knowledge. Training will not be limited to the *Employer's* technical staff only, but will also include other *Contractors* that have been appointed by Eskom to perform related work at Grootvlei Power Station.

The *Employer's* staff will be assessed for competency after training has been provided on difference systems at six months intervals. The *Employers* expectation shall be outlined in terms of skills matrix. The *Contractor* will be required to submit the competency assessment criteria to the *Employer* for acceptance. The *Employers* staff requiring training shall have suitable Technical

qualifications and experience with the plant with the plant and equipment covered by this agreement as a prerequisite for successful training by the *Contractor*.

14 Design and supply of Equipment

All designs, drawings and other technical information relating to the works, including software and computer codes provided by the *Contractor* under the Contract, and the intellectual property rights contained therein acquired by the *Contractor* prior to or during the preparation of its offer or in the course of performing its obligations under the Contract shall be and remain the property of the *Employer*.

15 Management of work done by Task Order

Both a Task Order and an Assessment Report will be issued in writing by the *Employer* at the beginning of each quarter before the task is performed

The *Contractor* must accept the Task order by signing it and returning a copy thereof to the *Employer* as soon as possible

On the 25th of each month, an assessment will be carried out by the *Contractor* by completing, signing and returning the Assessment Report to the *Employer* in order to verify the completion of the task as per the Task Order.

The *Contractor* shall then then create a Tax Invoice and forward it to the *Employer* for the attention of Finance Department.

The *Contract Supervisor* shall then create the Service Entry, which will facilitate task payment.

15.1 Correction of defects

The defects will be rectified /repaired in accordance with works management procedure.

Recurring defects shall be escalated to Contractor's Service Manager as soon as possible, and thoroughly investigated in order to provide an amicable solution

16 Health and safety, the environment and quality assurance

16.1 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:

- Cost of Contractor's medical examination, safety induction are for the Contractor's account.
- Contractor is responsible for 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 at all times 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 Cardinal Rules or Life Saving Rules. These will be provided by the Employer on the start of the contract.
- The Contractor shall ensure that all the documents required by SHE specification 240-73416879 check list are in place on the contract start date
- The Employer follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The Contractor is expected to fully co-operate to achieve this objective. 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 Labour, 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, an inaugural meeting is held with the Contractor and the Service Manager to explain all requirements of the Site Regulations.
- Before work starts on site, an inaugural 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) Rev1 and submit it to Employer incise there is an incident involving their employees and also applicable to this contract

16.2 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 off 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.

16.3 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 as a minimum, 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 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 incident from the moment it occurs, until it can be audited and mitigated.
- In case the contractor damages the plant whilst executing the scope, the contractor shall rectify the plant and the contract can be terminated thereafter.

17 Procurement

17.1 People

17.1.1 Minimum requirements of people employed

- C&I technician is required to have a National Diploma T4, or equivalent qualification in electrical engineering (light-current, Control and Instrumentation) with minimum three years' experience the Turbine Control (Mauell) and Protection system environments.
- The specialist is required to have a BTech, or BSC and or equivalent qualification in electrical engineering (light current, Control and Instrumentation) with minimum three years' experience the Turbine Control (Mauell) and Protection system environments.
- Contract administrator must be in possession of matric certificate.

17.1.2 Subcontracting

All *Sub-Contractors* are to be *Employer* approved *Contractors* / vendors / suppliers. If the *Contractor* is uncertain of the approval status of the *Contractors* / vendors / suppliers the *Contractor* formally requests from the *Project Manager* confirmation of the status.

The *Contractor* does not procure the services of *Contractors* / vendors / suppliers without the prior approval of the *Project Manager*. Furthermore the contract between the *Contractor* and the sub*Contractor* must be aligned with this contract. Subcontract documentation, and assessment of subcontract tenders

All *Sub-Contractors* are to be *Employer* approved *Contractors* / vendors / suppliers. If the *Contractor* is uncertain of the approval status of the *Contractors* / vendors / suppliers the *Contractor* formally requests from the *Project Manager* confirmation of the status.

The *Contractor* does not procure the services of *Contractors* / vendors / suppliers without the prior approval of the *Project Manager*. Furthermore the contract between the *Contractor* and the sub*Contractor* must be aligned with this contract.

18 Plant and Materials

18.1 Specifications

All Specifications are in the Description of *Works*. The *Contractor* should also note the following:

The *Contractor* implements a quality system and maintains the quality system until the completion of the whole of the *Works*. The system, will as a minimum, comply with the provisions of the ISO9001:2000 series. The system will be to the *Employer's* satisfaction and will be accepted prior to the commencement of any work on site.

The *Contractor* will be subject to periodic audits by the *Employer* in order to ensure compliance with the system and standards as required by this contract. Any deviations will be corrected to the *Employer's* satisfaction

The *Project Manager* has the right to stop the *Contractor's* work activities which, in the opinion of *Project 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 *Project Manager's* satisfaction. The *Contractor* shall have no claim against the *Employer* in respect of delay due to the above.

The *Contractor* ensures that all the deliverables 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.

The *Contractor* will provide all relevant training records to the *Employer* to verify the competency of the staff.

The *Contractor* shall arrange the access permit for his/her employees at their cost

The *Contractor's* employees shall do induction before commencing work at the *Contractor's* cost

Procedures

Below procedures will be issued by Employer's representative in the kick off meeting.

Number	Title	Issued by
	<i>Employer's</i> Health and Safety Requirements	
Act 85 of 93	Occupational Health and Safety Act	<i>Contractor</i>
GVL 0434	Environmental Statement of Commitment	<i>Employer</i>
240-29259745	Environmental non-conformances, corrective and preventative actions	<i>Employer</i>

240-29311739	Occurrence Management Procedure	<i>Employer</i>
240-30008949	Safety, Health and Environmental Specifications for Contractors	<i>Employer</i>
GVL T 0391	Contract Quality Management	<i>Employer</i>
32 - 5	Incident Management Procedure	<i>Employer</i>
240-62946386	Vehicle and Driver Safety Management	<i>Employer</i>
32 – 136	Construction Safety, Health & Environment Management	<i>Employer</i>
557-6823	Cardinal Rules	<i>Employer</i>
36 - 583	Cellular phone usage whilst driving and working	<i>Employer</i>

19 Site services and facilities

19.1 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.

The Contractor makes arrangements at his own expense to improve continuity and quality of power where necessary for any reason and no claim of any nature relating to power failures is considered.

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 statutory Certificate of Compliance for such a connection or installation. The use of this power supply is used to cater for the Contractor's office requirements and is not to be used for any construction purpose. Construction power is available to the Contractor within the main turbine and boiler house.

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.

The Contractor shall provide, at his own expense, all temporary wiring and cabling to lead power from the point of supply or distribution boards, to the various points where it is required, maintain same and remove on completion

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.

Sanitary Facilities

All the Contractor's personnel are expected to make use of the Station Terrace sanitary facilities. The Contractor provides additional facilities as required at own cost.

Medical Facilities

The Contractor provides, at his cost, a First Aid service to his employees. 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.

Outside the Employer's office hours, the Employer's First Aid Services will only be available for serious injuries and life threatening situations.

The Employer will be entitled to recover the costs incurred, for the use of the above Employer's facilities, from the Contractor.

Water

The Employer provides a water connection point at the Contractor's off-terrace site yard. The Contractor provides, at his own cost, all connection fittings, pipe work, temporary plumbing and pumps necessary to lead the water from the Employer's points of supply to the various points where it is required. The Contractor is responsible to maintain these facilities and to remove it at completion of the whole of the Works.

The Service Manager does not guarantee continuity of supply and the Contractor makes his own provision for standby supplies to maintain continuity of work. Claims of any nature relating to discontinuity of water supply are not considered.

Lighting

Temporary local lighting in accordance with the requirements of the Factories Inspector shall be provided by the Contractor at his own expense. No local lighting will be provided by the Employer, with the exception of the lighting provided for sandblasting facilities. Area lighting immediately outside the boiler and turbine houses and stairway lighting is provided by the Employer.

Ventilation

The Contractor shall make his own allowance for adequate ventilation of works with the exception of the ventilation provided in the in the sandblasting tents which will be provided by the Employer.

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.

The Contractor provides temporary access points from the prescribed routes and roads to the points where the Contractor is required to perform work, having first obtained permission in writing from the Supervisor.

19.2 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. This includes the needs of his Sub-Contractors.

Site establishment and de-establishment will be at the cost of the Employer.

20 Working on the Affected Property

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

20.1 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 be 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 (including 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 OV18 form. No asset shall be removed from site if the OV18 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.

Under no circumstances shall the Contractor recruit outside Grootvlei Power Station's security gate. An applicable local office for recruitment shall be used.

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 is expected to comply with the Grootvlei Site Regulations, a file of which will be given to the Contractor on arrival. The file remains the property of the Consultant for the duration of the contract. The Contractor is responsible for the maintenance and updating of this file, to include new or revised Site Regulations as issued by the Employer during the contract period.
- 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.
- The generator area and the other units are barricaded and out of bounds and only authorised persons are permitted. Areas outside of Site are out of bounds to the Contractor's employees.
- A maximum speed limit of 40km/h on site must be adhered to at all times.
- All Contractor's permits must be returned to Protective Services on completion of the works.

People restrictions, hours of work, conduct and records

The Contractor shall keep records of his employees working at Grootvlei Power Station, including those of his sub-Contractors. 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 provide the clocking system and ensure it is always in a working condition. The Contractor shall then provide the captured working hours including overtime and submit it to the Employer for payment on the monthly assessment day. The attendance reports captured via the clocking system must be available as and when required by the Employer

20.2 Health and safety facilities on the Affected Property

The Contractor provides, at his cost, a First Aid service to his employees. 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.

Outside the Employer's office hours, the Employer's First Aid Services will only be available for serious injuries and life threatening situations.

The Employer will be entitled, however, to recover the costs incurred, for the use of the above Employer's facilities, from the Contractor.

20.3 Environmental controls, fauna & flora

The Contractor shall comply with Grootvlei Power Station environmental management system. This includes the identification, collection, storage, transportation and disposal of waste. Hazardous waste shall be disposed off 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.

20.4 Cooperating with and obtaining acceptance of others

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

20.5 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 OV18 form. No asset shall be removed from site if the OV18 form is not attached.

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

21 List of drawings

21.1 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