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C3.1: *EMPLOYER'S SCOPE*

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1 Description of the services

1.1 Executive overview

According to the Occupational Health and Safety Act 85 of 1993, the owner of infrastructure has duty to ensure that Civil Structures remain serviceable throughout their occupancy and utilisation. This is ensured by carrying out annual statutory inspections and regular inspections to determine the condition and state any remedial works which may be required.

Furthermore, immediate design changes may be required on existing structures to meet new structural demands. To ensure this is done, a professional engineering team must be available on an as and when required basis.

During scope or project execution, it is necessary for construction supervision to be conducted by a Professional Civil Engineer. This contract will therefore also incorporate the provision of this service.

1.2 Interpretation and terminology

The following abbreviations are used in this Scope:

Abbreviation	Meaning given to the abbreviation
CCCC	Central Change Control Committee
ECSA	Engineering Council of South Africa
Pr Eng	Professional Engineer
SACPCMP	South African Council for Project and Construction Management Professionals
SCCC	Site Change Control Committee

2 Specification and description of the services

The *Employer* (Eskom) contracts with the *Consultant* for a period of 3 years to take the professional responsibility for Civil Structures at Grootvlei Power Station. The *Consultant* shall provide professional engineering services including, but not limited to, providing design solutions for all infrastructure across the station where required and support the *Employer's* drive in sustaining and improving the performance and life expectancy of the *Employer's* assets. Furthermore, the *Consultant* is to carry out all scheduled inspections as recommended by the *Employer* in line with the recommendations of the Occupational Health and Safety Act 85 of 1993.

The *Consultant* is to assist an Eskom appointed *Employer's Agent* to ensure that the *Contractors* comply with their respective contracts and no unnecessary compensation events are incurred by the *Employer* during the execution of construction projects for the designs completed by the *Consultant*.

- The *Consultant* conducts investigations and inspections on the Power Station infrastructure with the *Employers* representative as scheduled in the Civil and Structures Maintenance Strategy for Grootvlei Power Station. Upon completion, the consultant submits a detailed report highlighting the condition of the asset inspected with recommendations for remedial works.

The items to be inspected on a yearly basis are the following:

- Boiler House (Steel structure, 18 000m², 5 levels, maximum height = 60m), including internal buildings.

- Turbine House (Steel structure, 9900m², 2 levels, maximum height = 30m), including internal buildings and offices.
 - Precipitator Structures
 - North and South Smoke Stack including platform
 - East and West Coal Staithes
 - All Conveyor structures (7 x interdependent structures)
 - Cooling Towers 1-6 with all associated infrastructure (including ponds, drift eliminator structures, inlet and outlet structures) (5 x towers)
 - Water Treatment Plant Structures (building, clarifiers x 2, flocculation tank)
 - Effluent Plant Structures
 - Reverse Osmosis Plant (including 2 x clarifiers and 1 x clear water tank)
 - 2x Stores building and yards (1600m² and 4600m²)
 - Hazardous waste yard with associated infrastructure (drains, sumps etc.)
 - Electrical and Mechanical Workshop (2600m²)
 - Boiler Makers Workshop (950m²)
 - Main Building (3 levels with flat roof, 800m² plan area)
 - Security Building and traffic entrance covering structure
 - Intake House at Vaal Dam
 - High lift Pump House at Vaal Dam
 - Vaal Dam Clarifiers
 - Station Roads (5km)
 - Entire drainage system including storm water catchments and channels, manholes, sumps, and culverts
 - Lower Ash Water Return Dam Pumphouse
 - Cooling Water (CW) Pumphouse
 - Weighbridges (2 x Incoming and 2 x Outgoing)
 - Rail Inloading Structure
- The *Consultant* together with the *Employers* representative conducts civil and structural engineering investigations, concept designs and detailed designs. A design report with all design calculations, a bill of quantities and works information for all problems brought forward by the *Employer* in respect of the Power Station's requirements and where necessary are to be provided for approval by The Employer through his/her processes.
 - The *Consultant* shall ensure that the execution of repair works within the power plant is planned such that safety of all personnel is not compromised. He/She shall advise where tasks shall be carried out only when the units are offline and assist the *Employers Agent* plan accordingly.
 - The *Consultant* shall identify and provide mitigation measures for risks associated with the infrastructure on site including all structures.
 - The *Consultant* shall assist an Eskom appointed *Employer's Agent* to ensure that all Civil Engineering contracts are carried out to comply with the specifications, procedures, relevant standards, good maintenance practices and quality in accordance with the requirements of the specific contract.
 - The *Consultant* shall identify all waste-full and unsafe practices and co-ordinate and implement cost saving suggestions with the *Employer's Agent*.
 - The *Consultant* shall advise the *Employer* of any changes in government regulation and legislation with regards to all Civil Infrastructural requirements as listed in this contract.
 - The *Consultant* is to assist any Candidate Engineers of the *Employer* to work towards ECSA Professional Registration within the contract period. Training is to be completed through problem solving of all issues solved during the contract period where the engineer may be required to be seconded to the facilities of the *Consultant* for a period.
 - All documents developed during the period of this contract relating to Grootvlei Power Station will belong to the *Employer*.

2.1 Qualifications:

The *Consultant* provides to the *Employer* with his tender an Organogram for all the works to be provided above. The Organogram shall include personnel with the following qualifications as minimum;

- Professionally Registered Structural Engineer as a Lead Engineer (minimum 7 years' experience post professional registration)
- Structural Senior Engineer with minimum 5 years of experience
- A Civil Engineer/Civil Engineering Technologist with at least 3 years of experience as an engineering practitioner
- A Draughtsman with minimum 3 years of experience

2.2 Confidentiality and Intellectual Property Rights

- In terms of this contract any information or data supplied by either party arising out of this contract or from the performance of the services in terms of this contract, shall be treated in the strictest confidential.
- The *Consultant* shall, at the *Employer's* request at any time, and in any event upon the termination of this contract, return to the *Employer* any documents and any other material obtained from the *Employer* or generated on his behalf during the term of the contract.

The *Employer's* Specifications: -

The *Consultant* conducts all tasks stipulated in this contract with adherence to the listed standards and procedures as minimum:

NUMBER	TITLE	ISSUED BY
240-28981069	Environmental Policy	<i>Employer</i>
240-29828394	Waste Management	<i>Employer</i>
240-30008949	Safety, Health and Environmental Specifications for <i>Consultants</i>	<i>Employer</i>
240-29259738	Responsibilities	<i>Employer</i>
240-39216431	Inspection System	<i>Employer</i>
240-29129309	Injury/Accident Reports & Investigation	<i>Employer</i>
240-30008949	SHE Organization	<i>Employer</i>
240-30008967	Annexure	<i>Employer</i>
32-93	Eskom's Standard for Vehicle safety specification	<i>Employer</i>
32-421	Eskom Vehicle and driver safety management	<i>Employer</i>
240-29091616	Cardinal Rules	<i>Employer</i>
240-39405720	– Non – smoking policy	<i>Employer</i>
IEC 34	Contract Quality Management	<i>Employer</i>
Act 85 of 1993	Occupational Health and Safety Act and Regulations	<i>Consultant</i>
SANS 1091	National colour standard	<i>Employer</i>
SABS ISO 9000:1987	Quality management and quality assurance standards – Guidelines for selection and use	<i>Employer</i>
SABS ISO 9001:1987	Quality systems – Model for quality assurance in design/development, production, installation and servicing	<i>Employer</i>
SABS ISO 9002:1987	Quality systems – Model for quality assurance in final inspection and test	<i>Employer</i>
240-98349953	Check sheet for Geotechnical Investigations	<i>Employer</i>
240-99527377	Inspection Manual for Civil Works at Eskom's Power Stations	<i>Employer</i>
240-57127955	Geotechnical and Foundation Engineering Standard	<i>Employer</i>
240-57127951	Standards for the Execution of Site Investigations	<i>Employer</i>
240-92460850	Geotechnical Standard for CSY and ADF Site Investigation	<i>Employer</i>
240-91244751	Specification for Geotechnical Investigations Standard	<i>Employer</i>
240-144387236	Standard for Eskom Power Stations Geotechnical	<i>Employer</i>

	Engineering Remedial Work	
240-85549846	Standard for design of Drainage and Sewerage Infrastructure	<i>Employer</i>
240-107981296	Constructability Assessment Guideline	<i>Employer</i>
240-56364545	Structural Design and Engineering Standard	<i>Employer</i>
240-147741101	Structural Design Works Information and Technical Specification	<i>Employer</i>
240-144576061	Structural Design Work Instruction	<i>Employer</i>
240-84418186	Road Specification Manual	
240-144574575	Roads and Railways Design Work Instruction	
559-1962278150	Guideline for Non-Destructive Testing of Concrete Structures	
559-384730701	Guideline for Seismic Management of Civil Structures	
240-105658000	Supplier Quality Management Specification	<i>Employer</i>
240-109253698	Typical Contract Quality Plan	<i>Employer</i>

3 Constraints on how the *Consultant* Provides the Services.

3.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Employer's Agent* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Site Kick off meeting	First working Thursday after official contract is placed at 13:00	Grootvlei Power Station/Online	Consultant, System Engineer, and <i>Employers Agent</i>
Risk Register and compensation events	4 Weekly on Thursdays at 13:00	Grootvlei Power Station/Online	Consultant, System Engineer, and <i>Employers Agent</i>
Overall contract progress and feedback	4 Weekly on Thursdays at 13:00	Grootvlei Power Station/Online	Consultant, System Engineer, and <i>Employer's Agent</i>
Early Warning Meetings	As Required	Grootvlei Power Station/Online	Consultant, System Engineer, and <i>Employer's Agent</i>

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

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

3.2 *Consultant's key persons*

The *Consultant* ensures that an organogram is provided to the *Employer* for the efficient and professional execution of the works. The *Consultant* highlights the qualifications of all his employees. Upon change of personnel in the organogram, the *Consultant* ensures that the personnel are replaced by similarly qualified persons to maintain the level of professionalism required for the works.

3.3 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 *Consultant* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

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

3.4 Documentation control and retention

3.4.1 Identification and communication

Each service will be allocated an order number which will be generated by the SAP System.

All communication from the *Consultant* to the *Employer* is to be in the form of a letter addressed to the *Employer* concerning the contract and may be sent via email to the *Employers Agent*. The letter must clearly state whom it is addressed to, for what purpose and be clear in the assistance required from the *Employer*.

3.4.2 Retention of documents

The *Consultant* submits all documentation prepared for the *Employer* to the *Employer* upon completion of the service. The documentation is to be submitted in both Hard copy (1 copy) and Soft copy (1 copy). This is to include all reports completed, designs, design reports, design calculations with assumptions and drawings, Bill of quantities and the Works Information where required depending on the service provided.

Upon submitting documentation, the *Consultant* ensures that he retains documents generated for the purposes of this contract for a period of at least 5 years after the completion of this contract. These documents shall be in PDF form with all drawings retained also in DWG and DGN format.

3.5 Invoicing and payment

The following details shall be shown on or attached to each Invoice to show how the amount due has been assessed:

1. Activity as per schedule agreed to in this contract
2. Resources utilised with hourly rates as listed for this contract where applicable
3. Total Amount without VAT
4. VAT
5. Total amount with VAT

The *Consultant* shall address the tax invoice to the *Employers Agent* and include on it the following information:

- Name and address of the *Consultant* and the *Employer's Agent*;
- The contract number and title;
- *Consultant's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

INVOICES:

All invoices to be emailed to:

invoiceseskomlocal@eskom.co.za

The invoice shall be addressed to Eskom Holdings SOC Limited as follows:

Eskom Holdings SOC Limited
Accounts Payable Department

Grootvlei Power Station
Private Bag X
2420 Grootvlei

VAT NUMBER: 4740101508

3.6 Contract change management

Where items not listed in the activity schedule are identified during contract execution, the *Consultant* prepares a quotation for assessment by the *Employers Agent*. The *Consultant* may begin with the works only once approval is given in written by the *Employers Agent*.

3.7 Inclusions in the programme

All projects conducted by the *Consultant* will follow the Engineering Change Management Procedure 240-53114002 which requires approval by either the SCCC or CCCC. Each task or activity shall be preceded by a programme indicating when the activity will be delivered for preparation of presentation to the relevant committee.

3.8 Quality management

3.8.1 System requirements

The *Consultant* reviews and approves with the *Employer* any Quality Control Plans submitted by *Consultants* executing the *Consultants* designs.

The *Consultant* conforms to the following Quality Management requirements:

- The quality requirements are as per ISO 9001 and Eskom Standards, namely, 240-105658000 Supplier Quality Management Specification, 7.1/ST/02 Quality Requirements for Engineering and Construction work (refer to forms QA001/A and QA001/B for the applicable sections)
- The *Consultant* is responsible for defining the level of QA/QC or inspection to be imposed on his Sub- *Consultants* and suppliers of material where applicable. This level is based on criticality of Plant and Materials and is submitted to the *Employer's Agent* for acceptance.
- The *Consultant* submits a fully detailed Contract Quality Plan (CQP) for acceptance within one week of the Contract Date.
- No work is allowed on Site unless *Employer* accepts the CQP.
- The *Consultant* shall compile a data package of relevant test certificates for each section of work which must be reviewed and signed off by the *Employer's Agent*.
- Quality Assurance plan/manual.
- Inspection & Test Plans (ITP/QCP).
- Organograms (changes only with the *Employers* acceptance).
- Copy of all work instructions, procedures and method statements when requested by the *Employer's Agent*.

3.8.2 Information in the quality plan

The *Consultant* completed his quality plan as per document 240-109253698.

3.9 Environmental Management

Supplier Environmental Requirements:

- a) The Supplier shall have a documented and implemented environmental management system e.g. environmental policy, operational procedures relating to their activities.

- b) The Supplier shall comply with all Grootvlei Power Station environmental requirements such as policies, licences, permits, standards and work instructions.
- c) Ensure that all requirements contained in the Grootvlei Power Station ISO 14001:2015 Environmental Management System are adhered to.
- d) Project specific and/or Organisation's basic environmental management plan and waste management shall be outlined.
- e) Station Waste Management Procedure and color coding shall be always adhered to.
- f) Commitment to ensuring that environment is considered when executing activities.
- g) Polluter pays principles shall apply to all contractors, in which 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.
- h) Non-conformances shall be issued where there are deviations from Grootvlei Power Station work s and any other environmental requirements.
- i) The Supplier shall allocate funds for the implementation of environmental requirements as and when required and ensure that personnel with basic environmental knowledge is appointed on part time/ fulltime basis depending on project scope.
- j) The Supplier shall ensure that employees who deny to perform environmentally hazardous work in terms of section 29 of NEMA 107, of 1998 are protected.
- k) Adherence to the 'Duty of Care' as stipulated in section 28 of the National Environmental Management Act 107 of 2008.
- l) All incidents shall be managed according to Eskom Environmental incident management procedure- **240-133087117**, and all Environmental Incident shall be reported according to the requires stipulated in the procedure.

3.10 The Parties use of material provided by the *Consultant*

3.10.1 *Employer's* purpose for the material

All material compiled and submitted by the *Consultant* is to be used by the *Employer* for ensuring that the infrastructure at Grootvlei Power Station adheres to the Safety Requirements for tailings dams in South Africa. This information is to be used to draft other contracts where *Consultants* are appointed to carry out the required construction tasks.

3.10.2 Transfer of rights if Option X 9 applies

There is no exception to the requirements of X9. The *Consultant* shall not challenge or assist any other party challenging at any time the validity or ownership of any of the intellectual property rights relating to the material created and developed for this contract.

3.11 Health and safety

The *Consultant* shall at all times comply with the health and safety requirements prescribed by law as they may apply to the *services*.

The *Consultant* shall adhere to all OHS Legal requirements, OHS corporate policies, standards and procedures to which Eskom subscribes and as indicated on the issued SHE specification.

The *Consultant* shall, when coming on site (Grootvlei Power Station), abide by the Lifesaving Rules. These will be provided by the *Employer* on the start of the contract.

The *Consultant* shall also abide by the Grootvlei High risk Safety, Health and Environmental Specifications 240-73418055, which will also be provided by the *Employer*.

The *Consultant* shall, when coming on site (Grootvlei Power Station), make use of approved personal protective clothing such as overalls, safety shoes, safety hat, safety goggles, dust mask and gloves when necessary.

The *Employer* follows an Incident management procedure (32-95) 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 *Consultant* is expected to fully co-operate to achieve this objective. The *Consultant* will report any incident and accidents to Grootvlei Power Station within 24 hours or before end of shift. This report does not relieve the *Consultant* 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 *Consultant* implements a safety plan and maintains the safety system until the completion of the whole of the works. The plan, will as a minimum, contain PPE information, written safe work procedures, job specific risk assessments, safety meetings, etc. The plan will be to the *Employer's* satisfaction and will be accepted prior to the commencement of any work.

The *Consultant* will be subject to periodic audits by the *Employer* to ensure compliance with the plan. Any deviations will be corrected to the *Employer's* satisfaction.

The *Employers Agent* has the right to stop the *Consultant's* work activities which, in the opinion of *Employers Agent*, is un-safe. The *Consultant* may only continue with work activities when all safety deficiencies have been corrected to the *Employers Agent's* satisfaction. The *Consultant* shall have no claim against the *Employer* in respect of delay due to the above.

The *Consultant* shall comply with the health and safety requirements contained in the contract tender package (j) The *Consultant* allocates staff to be trained and authorised as Responsible Persons according to *Employer's* Plant Safety Regulations and/or High Voltage Regulations. These Responsible Persons must be available on Site as and when required to take out permits to work.

3.12 Procurement

3.12.1 BBBEE and preferencing scheme

Reporting and Monitoring

- The suppliers shall on a monthly/quarterly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- Eskom shall review the SDL&I reports submitted by the suppliers within 60 (sixty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.
- Upon notification by Eskom that the suppliers have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.

Every contract shall be accompanied by the SDL&I Implementation Schedule which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments

3.12.2 Limitations on subcontracting

Where the *Consultant* encounters scenarios where specialised work is required, subcontracting of such services are to be obtained in agreement with the *Employers Agent*.

3.13 Working on the *Employer's* property

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

Access to Site

The *Consultant* makes his/her own assessment of the site, and allows in his/her 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.

Access to site shall be in line with the Grootvlei Power Station's access procedure. The *Consultant* shall be required to make an application to enter site for the duration of the contract, including the warranty and defect period where applicable. A permit shall only be issued once the *Consultant* and his or her employees have attended the safety induction and has undergone medical checks.

All the assets must be declared and registered with security upon entering site. This includes portable assets such as laptops. The record must be kept on the OV18 form. No asset shall be removed from site if the OV18 form is not attached.

The *Consultant* shall have no claim against the *Employer* in respect of delay at the security main gate.

All *Consultant* permits shall be returned to Protective Services on completion of the works.

Equipment

Any equipment, or appliances, used by the *Consultant* conforms to the applicable OHS Act safety standards and is maintained in a safe and proper working condition. The *Employer's Agent* has the right to stop the *Consultant* use of any equipment which, in the opinion of *Employer's Agent*, does not conform to the foregoing.

Off-loading and material handling equipment is not available on site and if required, is to be provided by the *Consultant*.

Site Regulations

Note that the speed limit on the site is 40 km/h. The vehicle permit of any persons contravening any traffic act on site shall be cancelled.

The *Consultant* complies with the Grootvlei Site Regulations, a copy of which is available for perusal at the *Employer's Agent* offices.

Any subject within the authority of the *Employer's Agent* may be addressed by a Site Regulation. Before work starts on site, an inaugural meeting is held with the *Consultant* and the *Employer's Agent* to explain all requirements of the Site Regulations.

The *Consultant* is issued with a file of current Site Regulations on arrival. The file remains the property of the *Employer's Agent* and the *Consultant* is responsible for its maintenance and updating as revised regulations are issued by the *Employer's Agent*.

Permits

No work commences without the acceptance of the permit to work or LAR by the *Consultant*. The plant safety regulations course can be done at any Eskom Power Station but the practical course is Grootvlei specific.

Accommodation and Transportation

At his own cost the *Consultant* provides his/her own accommodation and transport for all his/her employees engaged in the execution of the works. This includes the needs of his/her sub *Consultant*. No accommodation is available at Grootvlei Power Station.

Security

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

The *Consultant* 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 *Consultant* 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.

If any *Consultant* staffs are transferred from Grootvlei or leave site, the person's permit is handed over to the Supervisor. The *Consultant* ensures that personnel leaving site are transported out of the security area and that the permit is returned.

No firearms, weapons, alcohol, illegal substances and cameras are permitted on site. Any person suspected of being under the influence of alcohol is tested and if proved positive, is refused entry to the security area.

No "private work" is carried out for or on behalf of any Eskom employee.

Safety

The *Consultant* implements a safety plan and maintains the safety system until the completion of the whole of the works. The plan, will as a minimum, contain PPE information, written safe working procedures, job specific risk assessments, safety meetings, etc. The plan will be to the *Employer's* satisfaction and will be accepted prior to the commencement of any work.

The *Consultant* 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 *Employer's* Agent has the right to stop the *Consultant* work activities which, in the opinion of *Employer's* Agent, is un-safe. The *Consultant* may only continue with work activities when all safety deficiencies have been corrected to the *Employer's* Agent satisfaction. The *Consultant* shall have no claim against the *Employer* in respect of delay due to the above.

Site	:	Grootvlei Power Station
Regional Authority	:	Dipaliseng Town Council, Mpumalanga Province
Nearest Towns	:	Balfour – 18km north east of power station Villiers – 30km south of power station Heidelberg – 40km north of power station There are informal settlements within a 10 km radius of the power station.
Infrastructure	:	Grootvlei Power Station is situated approximately 3km from the N3 highway and is connected to it by means of a tarred road. There is also a secondary tarred road connecting the site with the R51 and R53. Water is supplied to the adjoining township, and sewage is returned to the sewerage <i>Works</i> of the power station. The railway line from Balfour to Bethlehem passes the station. 400kV and 88kV power lines cross the existing road network in the area.
Latitude & longitude	:	26° 46' S & 28° 29' E

Landowner	:	The power station is situated on the farm Grootvlei Power Station, ERF 458 IR, Title deed number CCT50784/1983. Eskom is the landowner.
River catchment	:	Mid-Vaal
Regional Climate		Grootvlei Power Station is situated on the Highveld in the western part of Mpumalanga province on the escarpment, at an average height of 1551 m above sea level. The winters are generally dry and cold with regular frost and temperatures varying between -7°C and 23°C. The summers are mild with most of the rainfall occurring during this season. Temperatures vary between 12° & 32° C.
Wind direction		Data from the Heidelberg weather station shows that Grootvlei Power Station is sited in such a way that for most of the year (291 days) the wind direction is from the power station in a direction that is North West.
Rainfall		Based on information recorded at the Heidelberg weather station, the average annual rainfall for the Heidelberg area is approximately 691 mm. (Weather Bureau, Pretoria).

3.13.2 People restrictions, hours of work, conduct and records

The *Consultant* records information of all those that enter the *Employers* site on each day. This information is to be presented to the *Employers Agent* on the day of the site visit.

Working hours at Grootvlei Power Station are as follows:

Monday – Thursday	: 07:15 to 16:30
Friday	: 07:15 to 12:15
Saturday, Sunday and Public Holidays	: Off

Work may be conducted outside the above stipulated hours in consultation and agreement with the Employers Agent

3.14 Cooperating with and obtaining acceptance of Others

The Consultant will be required to cooperate Eskom Rotek Industries for the duration of this contract who is the current ash dam operator, the Department of Water and Sanitation (Dam Safety Office and other supporting functions) who is the regulator for ash dam operations and ultimately various contractors who will be appointed to implement the designs completed by the Consultant.

3.15 Things provided by the Employer

The Employer will provide all drawings and reports if available to enable the Consultant to carry out his duties. It is important to note though that not all drawings are available and the Consultant will at times be required to acquire information through site investigations and surveys.

4 List of drawings

4.1 Drawings issued by the *Employer*

All drawings shall be issued as and when required for the successful completion of the tasks issued out by the *Employers Agent*

Drawing number	Revision	Title