

PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S SERVICE INFORMATION

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Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
ASTM	American Standard test method
CPP	Condensate Polishing Plant
CM	Condition Monitoring
FRF	Fire Resistant Fluid
EFP	Electric Feed Pump
FD	Forced Draft
ID	Induced Draft
ICP	Inductively Coupled Plasma Spectrometric Method
LAN	Local Area Network
LH	Left-hand
RH	Right-hand
ODS	Operating deflection shape
PA	Primary Air
SSC	Submersible Scraper Conveyor
SOW	Scope of Work
ISO	International Standard Organisation
Abbreviation	Meaning given to the abbreviation
OBL	Outside battery limits

1. Description of the service

1.1. Executive overview

This contract is for the following services PF Sampling, PA & SA Heater Leakage Test, ESP Efficiency Test, Coal & Ash Sampling at Lethabo Power station.

The test should be conducted for each of the operating units at Lethabo Power Station. PA & SA Heater leakage testing should be conducted every six months or twice a year. Ash will be sampled daily, and coal will be sample on an ad hoc basis's Efficiency Test should be conducted every GO and PF sampling should be conducted post mill service.

Lethabo Power station is a coal fired power plant with six units, with each installed unit having a separate boiler. Six tube mills are installed on each unit i.e. A, B, C,D,E,F.

PULVERISED FUEL SAMPLING

Pulverised fuel sampling is conducted to optimise the combustion of the PF in the boiler and to determine the performance of the mills, by measuring the PF finess.PF leaves the mills classifier in one pipe on the NDE classifies and the DE Classifier. Each classifier pipe later splits into 3 pipes that supply the boiler with PF totalling six pipes per mill. Sampling points are installed on each of the 6 pipes from each mill.

PF Sampling is conducted in accordance to the ISO 9931:1991(em), Coal-sampling of pulverized coal standards and Pulverized Fuel Sampling Collection and Size Grading Standard (240-76440331).

PA & SA HEATER LEAKGAE TEST

Lethabo Power Station uses the regenerative air heaters. These air heaters ensure that heat is recovered from the waste exhaust flue gases thus improving the boiler efficiency. The air heater performance test and air in leakage test are conducted to determine the following:

- To identify abnormal changes in air heater leakage or efficiency and determine the cause for degradation in the performance.
- To determine leakage across ducting.
- To provide information to allow for the proper accounting of the contribution that air ingress in the air heater contributes to deterioration to unit heat rate.

1.2. Employer's requirements for the service

Routine plant performance tests are required for determining the health of the power plant components and systems for purposes of troubleshooting and optimizing plant performance.

The service provider is required to conduct routine test as per the prescribed standard i.e. 1019004 -Routine Performance and Testing Guidelines and 10190705-Routine Performance and Testing Guidelines volume 2 and other British Standards and the ASME Performance Test Codes.

The Test Guidelines were developed to permit reliable testing of power plant components producing repeatable results. They are designed to produce results that may be used for trending, analysing, troubleshooting and optimizing the performance of individual pieces of power plant or equipment.

1.2.1. Air Heater leakage test requirements

The contractor should take measurements at the following areas: economiser outlet (common inlet for both PA and SA), SA outlet, PA Outlet on both sides on the boiler. The length of the probe used should be divided into equal segments.

1.2.2. Pulverised fuel sampling

The contractor should conduct isokinetic sampling of PF on the coal pipes between the mills and the coal burners. PF sample collection for fineness fractions .PF Sampling should be conducted in accordance with the ASME Performance Test Code PTC 4.1 and the pulverised fuel sample collection and size grading standard -240-76440331.

Test location	Measurement/samples	Resources	Equipment	No of ports
PF pipes	PF Sample	2	1X Sampler	
	PF Sample Pipe static pressure		2X Sieve shaker	
	PF Pipe velocity pressure		2X Weigh Scale	
	PF Temperature		2X Thermocouple	
	PF Velocity		2X Temperature Readers	
	PF Flow rate		2X PF Splitters	
			2X 300 micron sieves	
			2X 150 micron sieves	
			2X 106 micron sieves	
2X 75 micron sieves				
Raw coal sampling from feeders.	Raw coal from coal feeders ²	2	Five kilogram bucket 15 meter long rope Sampling bags Cable ties Name tag/sticker	N/A
Raw coal flow determination	Measure flow rate of the raw coal on the feeder.		2X fishing rod 2X Stop watch Bag or containers for storing the collected sample.	

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1.2.3. Ash sampling

The contractor will be responsible for monitoring the cegrit sampler daily, ensuring that it functions optimally. All defects on the system should be reported and attend to immediately. The contractor is also responsible for coarse ash collection. Coarse ash is collected the SSC at zero-meter level at each Unit. The contractor is also responsible for ensuring that the samples are submitted to the lab timeously every day. The contractor must ensure that the sign the relevant paperwork when submitting these documents and should collect empty bottles from the lab.

Test location	Equipment	Sampling port
Matrix 41ml	Sampling bottles and a means of labelling.	Matrix LHS and RHS
0ml SSC conveyor	Sampling bottle and a means of labelling.	SSC conveyor

1.2.4. Coal sampling

The contractor is responsible for collecting coal samples on an adhoc basis. The coal samples are collected from the feeders @ U1, U2, U3, U5, U6. U4 coal samples should be collected at the conveyor belt 24 hours before the required or stipulated test period. The Coal should be collected into heavy duty, moisture preserving bags and should be clearly labelled and sent to the lab.

Test point	Equipment	Sampling port
16ml coal feeders / 0ml T7 conveyors	20kg bucket, heavy duty moisture preserving bags, cable ties and a means of labelling.	Sampling port of coal feeders /T7 conveyors.

1.2.5. ESP

Lethabo power station uses electrostatic precipitators (ESPs) to clean the boiler waste gases. The efficiency of the ESPs is enhanced by the implementation of SO₃ flue gas conditioning. Isokinetic sampling should be done simultaneously at the four measuring sites.

Test Point	Equipment	Measurements taken
ESP LH inlet outer and inner ducts sequentially.	Probe with isokinetic dust sampling. Gas sampler.	Volume flow, flue gas temperature, moisture flue gas, inlet dust burden.
ESP RH inlet inner and outer ducts sequentially.	Probe with isokinetic dust sampling. Gas sampler.	Volume flow, flue gas temperature, moisture flue gas, inlet dust burden.
ESP LH Outlet Outer and inner ducts sequentially.	Probe with isokinetic dust sampling.	Volume flow, flue gas temperature, moisture flue gas,

	Gas sampler.	inlet dust burden.
ESP RH Outlet inner and outer ducts sequentially.	Probe with isokinetic dust sampling. Gas sampler.	Volume flow, flue gas temperature, moisture flue gas, inlet dust burden.

1.3. Interpretation of terminology

2. Management strategy and start up.

2.1. The Contractor's plan for the service

The following tests are conducted every 6 months on all operating units at Lethabo Power Station: SAH and PAH leakage test. Ash sampling is conducted daily on all running units. PF sampling must be conducted after every mill outage (Mill service). Coal sampling and ESP efficiency are conducted on an adhoc basis.

The contractor must submit a plan indicating the dates when testing activities are intended to be conducted and any special requirements should be highlighted in the plan.

2.2. Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Test plan, Risk register, testing requirements	Atleast two weeks before test commences and the day before the test commences	Performance and Testing offices	Employer, contractor
Discussions of results	A week after testing has been complete	Performance and Testing offices	Employer, contractor

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*. Records of these meetings shall be submitted to the *Service Manager* 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.

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

Before work starts on site, an inaugural meeting is held with the Contractor and the Employer, to explain in detail all requirements of the Site Regulations including working hours' access to site.

- The Contractor is issued with a file of current Site Regulations on arrival. The file remains the property of the Employer and the Contractor is responsible for its maintenance and updating to include new or revised regulations as issued by the Employer.
- The Contractor must ensure that all personnel performing work on the plant/site are authorised, this includes but not limited to; Confine space locations, Working at heights, Heat stress areas, Hazardous substances.

(The Contractor must provide and display on site office the organogram showing people and their lines of authority - communication)

2.4. Provision of bonds and guarantees.

N/A

2.5. Documentation control

Each instruction, certificates, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form which can be read, copied, and recorded.

- Writing is in the language of this contract.
- Assessment supporting documentation to be handed in to the Employer / Service Manager
- All communications must be printed and filed in the Service Managers file.
- All report should be issued within a week of data collection (refer to clause X17 of this contract).

Planning: Programmes are submitted in hard and electronic copy. The software package is MS Projects, Open Plan or equivalent, accepted by the Service Manager.

Completion: Completion certificate must be submitted on completion of each task order

2.6. Invoicing and payment

The Z clauses refer to invoicing procedures stated here in this Service Information. The list of information is to be shown on an invoice.

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 Ltd (Pty) and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*.
- The contract number, purchase order 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.

CPA calculation sheet and the Invoice for CPA (with the GL Account Number and the Cost Centre on the Invoice) to be send to the financial department as per the employer invoicing procedure/instruction. Invoices and a copy of the assessment with a Service Entry number to be send to the financial department as per the Employer's Invoicing procedure / instruction.

2.7. Contract change management.

This section is intended to deal with any additional requirements to the compensation event clauses in section 6 of the core clauses, such as the use of standard forms.

2.8. Records of Defined Cost to be kept by the *Contractor*

NEC TSC3 Clause 52 will apply.

2.9. Insurance provided by the *Employer*

Refer to Contract Data section 8.

2.10. Training workshops and technology transfer

The Contractor's personnel to do safety induction before entering the site and commencing with any work on Employer's account.

- All training will be on Contractor's account
- The Contractor's personnel to have job specific training.
- Minimum safety requirements for access are HIRA training.

All contractor personnel shall ensure compliance to all relevant Training, Regulation, Awareness and Workshops (E.g., SHEQ, IBI, LAR etc.).

2.11. Design and supply of Equipment

- Contractor to provide all tools and equipment necessary to perform the required service.
- All equipment and tools need to be marked and a list off all tools with the identification number to be provided to the Service Manager when entering site.
- All lost equipment and tools to be declared to the Service Manager and full details of incident.
- All test Equipment must be calibrated regularly, and certificates must be handed in to Service Manager.\

The Contractor will supply personal computers which will be used for data input required. These computers must also be maintained and upgraded by the Contractor. The Contractor will be responsible to pay all applicable software license fees for the duration of the contract. The history and configuration will remain the property of Eskom.

The Contractor will be responsible for the supply and maintenance of all portable condition monitoring equipment required in supplying the services.

(Analysers CSI 2140, Strobe Lights, Temp Guns, Infrared Camera Flir T640 equivalent or better. Test equipment to be calibrated and calibration certificates to be available on request. (Eskom Analysers might be used if agreed upon and as rolled out by Eskom).

2.12. Things provided at the end of the *service period* for the *Employer's* use

2.12.1. Equipment

- The Contractor returns to the Employer, equipment and surplus plant and materials provided by the Employer.
- Contractor Provides information and other things as stated in the Service information.

2.12.2. Information and other things

All Reports / Documents to be compiled, filed, discussed, and handed over to the Employer (the day to be announced by Employer) and at the end of the service. Clause 70.2 will apply.

- On completion of contract the Contractors safety file will be hand over to the Service Manager and Will be saved for 40 Years after completion / termination of the contract
- Contractor is Responsible to ensure that his Letter of Good standing is always valid as stipulated in the construction regulations point 7 (C) (iv) and she specifications 2.5.2 (iv) and 3. 10. Contractor will not be allowed on site if the Contractors letter of good standing is not valid.

2.13. Management of work done by Task Order

A Task Order is the instruction to commence work.

- No work shall commence until Task order is issued and supported by corrective / planned maintenance defect and has been finalised and accepted and signed by both the Employer and Contractor.
- Completion certificate to be issued after activity on Task Order is completed and Assessment certificate to be completed.
- Task orders, Assessments and Completion Certificates will be used for work required.

- All work will be issued via SAP Maintenance or as per Task order system.

Completion is when the Contractor has done all the work, which the Works Information states he is to do by the Completion Date and has corrected notified Defects, which would have prevented the Employer from using the works. The Site is handed back to the Employer in a condition acceptable to the Service Manager

3. Health and safety, the environment and quality assurance

3.1. Health and safety risk management

Health and safety

The Contractor shall comply with the Occupational Health and Safety requirements Act 85 of 1993 as well as per the Employer's procedure as stipulated below:

- SHEQ Policy 32-727
- The Employer's Procurement and Supply Chain Management Procedure 32-1034
- SHE Requirements for the Employer's Commercial Process 32-726
- Contractor Health and Safety Requirements 32-136
- Integrated SHE Organization; Roles and Responsibilities and Statutory Appointments 32- 296
- Live-saving Rules 240-62196227
- Working at Heights 32-418
- The Employer's Vehicle Safety Specifications 32-345
- Lethabo Contractor SHEQ Specifications 14RISK SRM – 084 Site Regulations and Procedures

The Contractor ensures that all his personnel attend a Health and Safety Induction Course prior to contract starting date, and annual re- induction. The Induction Course is presented by the Employer's Safety Risk Department at Lethabo Power Station. Arrangements are made with Safety Risk Management, by the Contractor. The Contractors Health and safety file is to be submitted for approval to the Employers Safety Officer before contract commencement.

The Employer's Safety Risk Manager visits and inspects the Contractor's workplace or site yard and the working areas to ensure that tools; machinery and Equipment comply with the minimum safety requirements.

The Service Manager may instruct the Contractor to stop work, where the Contractor's personnel fail to conform to safety standards or contravene health and safety regulations. Such stop-work order is not a compensation event. The Service Manager may instruct the Contractor to discipline his employees and to submit a disciplinary action report to the Service Manager. The Contractor implements additional health and safety precautions where necessary.

All the Employers health and safety procedures and regulations to be adhered to by the Contractor. A SHEQ file to be handed in at the SHEQ department for approval prior to wok commencement and kept up to date for the duration of the contract.

The Employer's Life Saving Rules: Five Life Saving Rules have been developed that will apply to all the Employer's employees, agents, Consultants and Contractors.

- Rule 1: Open, Isolate, Test, Earth, Bond, And/or insulate before touch - that is any plant operating above 1 000 V.
- Rule 2: Hook up at heights - no person may work at height where there is a risk of falling.
- Rule 3: Buckle up – no person may drive any vehicle for the Employer's business and/or on the Employer's premises: unless the driver and all passengers are wearing seat belts.
- Rule 4: Be sober (no person is allowed to work under the influence of drugs and Alcohol.
- Rule 5: Use a permit to work – where an authorization limitation exists, no person shall work without the required permit to work.

The Employer takes a "ZERO TOLERANCE" attitude to drivers and passengers who do not wear safety belts when driving in a vehicle for the Employer's Business and / or on the Employer's premises. The violation of this very important safety rule as well as any safety rule while performing work for or on behalf of the Employer may result in the Employer terminating your obligation to perform work in terms of your contract with the Employer.

All occupants must wear their safety belts properly and must never put the shoulder belt under their arm or behind their backs. Drivers and all passengers must always buckle-up for the sake of themselves and their families.

Employer's SHEQ Policy: The Employer has made a commitment to conduct business with respect and care for people, the environment, and assets and that no operating condition or urgency of service justifies exposing anyone to negative risks arising from the Employer's business. Compliance with the Employer's SHEQ Policy and applicable regulations is the responsibility of every employee and Contractor.

Contractor's SHEQ Policy: All Contractors shall have an OHS policy signed by the CEO of the Contractor and prominently displayed where employees normally report for duty. Signed copy of the OHS policy shall form part of the SHEQ file.

SHE Plan Requirements: Principal Contractors shall develop a suitable and sufficiently documented site specific SHE plans, based on the scope of work and client SHEQ specification. The SHE Plan must be pre-approved by the client for implementation. The principal Contractor/Contractor has a responsibility to send the SHE Plan to the client for approval prior to commencement of work. The SHE Plan must be applied from the commencement of and for the duration the construction work, which must be updated/reviewed as the work progresses/changes.

Safety risk management: "Standard for health and safety at Lethabo Power Station - requirements to be met by Contractors".

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

When a principal Contractor intends appointing Contractor, the principal Contractor shall ensure that the Contractor provides and demonstrate a suitable, sufficiently documented, and coherent site-specific health and safety plan, based on the client's SHEQ specifications and scope of work

Occupational Health and Safety Act 85 of 1993 – SECTION 37: In accordance with Section 37 (2) of the Act, the Contractor is appointed by the Employer as mandatory to assume Health and Safety duties and responsibilities. The Contractor ensures compliance with all requirements of the Act and any instruction or notification that enhances those requirements. The Contractor acknowledges that he is fully aware of all the requirements of the Occupational Health and Safety Act and undertakes to employ only staff who have been duly authorised in terms thereof and who receive sufficient safety training to ensure that they can comply therewith.

The Contractor undertakes not to do, and not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

The Contractor appoints a person who liaises with the Employer's Safety Officer, responsible for the premises relevant to the Contract. The person appointed shall on request supply the Employer's Safety Officer with copies of minutes of all Health and Safety.

Regulations and Procedures referred to in the Occupational Health and Safety Act - 85 of 1993 and all Regulations made hereunder as well as all the Employer's Safety and Operating Procedures. Any such instruction is not a compensation event. Furthermore, no amendments to the act or the Regulations or reasonable amendment to the Employer's Safety and Operating Procedures will entitle the Contractor to claim any additional costs or time incurred in complying therewith, from the Employer Safety Regulations of the Employer the Contractor conforms to the Employer's Plant Safety Regulations, The Employer makes available to the Contractor, on request, a copy of the latest revision of the Plant Safety Regulations.

3.2. Environmental constraints and management

The Contractor shall comply with the environmental criteria and constraints stated in the following: -

- Contractor to be familiarized with Lethabo Environmental statement of commitment (PS010)
- Contractor shall be certified in ISO14001:2015
- SHE File to be approved by the Environmental Department using LFM 443 checklist.
- Upon commencement of work contractor shall submit:
- An Aspect and Impact Register that complies with the ISO 14001:2015 standard.

- Contractor shall submit an Environmental Management Plan (EMP) associated with environmental risks related to the project, EMP should comply with the ISO 14001 standard.
- Self-audits during work execution will be conducted weekly whereby environmental risks are identified.
- Contractor shall report all incidents or risks whilst on the job to the Eskom Project leader who will inform the environmental department.
- All waste generated during execution of work must be disposed through proper pathways.
- Contractor shall comply to all environmental procedures on site, including the following
 - LBE23003 Environmental non-conformance; investigation and reporting
 - LBE22005 Environmental spill management procedure
 - LBE22004 Environmental waste management procedure

Waste Management: All waste must be disposed in a sound environmental manner in accordance with Lethabo Power Station Waste Management Procedure. Conformance to the Employer's Environmental Legal and other Requirements and the project must conform to Lethabo Power Station ISO14001 Standard with reference to Lethabo Power Station's Environmental Management System Manual. All environmental incidents must be dealt with as per the Station's Incident Management, Corrective and Preventative Procedure and all environmental incidents must be reported to the Environmental Department on site.

Waste shall be removed promptly to the designated disposal area. No stockpiling will be permitted. Waste segregation is important to facilitate recycling of waste. Ensure waste is disposed of in the correct colour bin:

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- Domestic waste to the white waste bins
- Production waste in the marked bins i.e., coal and ash only
- Paper and cans to their respective recycling bins
- Contact Civil Engineering for the disposal of building rubble
- Scrap metal, Wood & Rubber, Redundant Valves, Pipes, Idlers, Equipment etc. to be placed in the marked bins in the new Salvage Yard. Solvents and cloths used to the Cleaning Bay

Eskom periodically collects waste from the bins for disposal in the correct manner. No waste should be burned or buried on site. Where Eskom and the contractor have agreed that the contractor is responsible for the disposal of its waste, the contractor shall safely dispose of such waste and keep disposal certificates on file. The Contractor is responsible to contain all waste due to cleaning and maintenance of equipment and disposes of and to ensure conformance to all applicable environmental legislation.

Radiation Protection: The Contractor conforms to the Employer's procedure OMOP 2049 and OMOP 2051 when performing any industrial radiography.

Hazardous Substances: Waste declared as hazardous substances in terms of the Hazardous Substances Act no 15 of 1973 is the responsibility of the Contractor to ensure safe removal from the property to a registered Class 1 site. It is required in terms of the General Administrative Regulation (Regulation 7) of the Act that any manufacturer, importer, seller, or supplier of hazardous chemical substances shall supply the receiver, free of charge with sufficient information for the user, to enable the user to introduce the necessary measures as regards the protection of the health and safety of persons. It is therefore the responsibility of the supplier (dealing directly with the Employer) to supply the information. If information is not available for whatever reason, the supplier must indicate and give reasons to the Employer.

Pest Control: Only approved herbicides with a low environmental risk shall be used for pest control.
• Only registered pest controllers may apply herbicides on a commercial basis. Application of herbicides shall be in accordance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 194.

Water Conservation: Incidents related to water pollution must be reported to the Employer's environmental department within 24 hours. Report/fix leaking taps and pipes to save water. Use water sparingly. Chemical substances shall not be disposed of in wastewater or storm water drains.

Air Pollution: Dust suppression measures must be in place to reduce airborne dust. Noxious and offensive odours arising from work activities shall be adequately controlled.

Ground Pollution: Measures to prevent or control ground contamination shall be put in place e.g., drip trays, bund walls. Spill containment, clean-up and ground rehabilitation shall be done as per Lethabo procedures

3.3. Quality assurance requirements

Quality Management System: The Contractor shall be required to demonstrate by means of a Contract Quality Plan that this organisation is so structured that all the requirements of the specification will be properly monitored and controlled. The Quality Plan and Control procedures are to be carried out in accordance with QM 58. The Quality Control document is to be submitted for approval to Lethabo within three (3) days after order placement by the Contractor. The Supplier shall prepare and submit quality documentation as per the tender selected category (indicated in Form A) using the tender returnable document. By signature on Form A, The Contractor acknowledges and agrees to comply with and adhere to Eskom's policies and procedures (current and/or latest revisions) including the Supplier Contract Quality Requirement Specification (QM58). The Supplier further ensures that the outsourced product/service programmes conform to the requirements of the Works Information.

Quality requirements categorisation: Category 2 - Quality Requirements to be met

Quality Management Documents Requirements: The service provider to compile and submit all QCPs and ITPs for review and acceptance. A fully detailed Quality Control Plan (QCP) for acceptance within three (3) weeks of the Contract Date, which details all the aspects of the quality management system to be applied. It includes the methods that will be utilized to ensure quality assurance, control and improvement of the identified activities as stated in the Scope of Works.

Inspections: The service provider is required to conduct sufficient inspections and tests to satisfy that all requirements of the SOW met, and the results of inspections and tests are made available to the client.

Non-Conformance and Defects: NCR's and defects notifications are issued; the Service provider will acknowledge the receipt within 48 hours and proposes corrective and preventive actions to the client as per the contract response period. The corrective and preventive actions will include the implementation and completion dates.

Preservation and transportation Requirements: The service provider is to ensure that all products are preserved in their appropriate manner as described in their specifications or in Eskom's Preservation, Shipping and Transportation procedures as applicable. The service provider ensures that all storage requirements for products are properly implemented to preserve the products against adverse conditions, deterioration, damage, etc. Storage and preservation procedures for the different products must be submitted to the *client* for review and acceptance. The *client* may request to inspect the stored products at any given point during the storage period of the product.

Method Statement: The service provider to submit a detailed Construction Method Statements for each activity of his work, together with activity durations, to the client for review and acceptance prior to starting any work

Documentation control: All documents and records management should be performed according to Technical Document and Record Management Work Instruction (240-76992014). The Project Manager ensures that the service provider is provided with the latest revision.

4. Procurement

4.1. People

Permanent personnel must be based on site, available at Office hours times, however they may be utilised elsewhere one at a time if agreed by the Service Manager (Lethabo plant should not suffer if resources used elsewhere). Personnel must be available for afterhours callouts and should be on site within 60 minutes after being called out. The Contract Manager must be given first preference for the use of these people. Any personnel changes must be agreed with the Contract Manager before any changes are done.

4.1.1. Minimum requirements of people employed

- All staff required to perform the activities within the works information
- All relevant personnel names and titles must be specified to the Service Manager
- All Contractors personnel specified in this contract to be on site as per 2.3
- All new staff to be appointed in writing.
- Contract Staff are not allowed to work on any other contract.
- All new staff to do induction training
- All replacements of staff will be in the same discipline (like an artisan with an artisan with proof of qualifications)
- All new staff to be approved by Service Manager before entering the site or commencing work
- All new staff must hand in all qualifications and relevant documentation to the Service Manager
- When changing personnel, a new access to work form to be completed by the Contractor
- Only required specified approved amount of personnel to be allowed on site, pre-arrange with Service Manager
- Contractor to comply with the minimum leave requirements as per Occupational Health and Safety Act
- Contractor's leave to be planned and discussed with contract Manager before such permission will be allowed by Service Manager

4.1.2. BBBEE and preferencing scheme

Contractor must comply regarding any Broad Based Black Economic Empowerment (B-BBEE) or applicable referencing scheme measures.

Tenderers submitting B-BBEE Sworn Affidavits must ensure that the affidavits meet the following key pointers to ensure their validity:

- Name/s of deponent as they appear in the identity document and the identity number.
- Designation of the deponent as the **director, owner** or **member** must be indicated to know that person is duly authorised to depose of an affidavit. **(Mark the applicable option)**.
- Name of enterprise as per enterprise registration documents issued by the CIPC, where applicable, and enterprise business address.
- Percentage of black ownership, black female ownership, and designated group. In the case of specialised enterprises as per Statement 004, the percentage of black beneficiaries must be reflected. **(No blank spaces to be left)**.
- Indicate total revenue for the year under review and whether it is based on **audited financial statements** or **management account**. **(Mark the applicable option)**.
- Financial year-end as per the **enterprise's registration documents**, which was used to determine the total revenue. **(Financial year-end to be stipulated by day/month/year)**.
- B-BBEE Status level. An enterprise can only have one status level. **(Tick applicable level)**
- Empowering supplier status must be indicated. For QSEs, the deponent must select the basis for the empowering supplier status.
- Date deponent signed and date of Commissioner of Oath must be the same. **(The affidavit must be signed in the presence of the Commissioner of Oath. Furthermore, the Commissioner must also sign and stamp)**

- Commissioner of Oath cannot be an employee or ex officio of the enterprise because, a person cannot by law, commission an affidavit in which they have an interest.

Supplier Development and Localisation.

Local Content Designation: If the Commodity or part of its a Designated Sector refer to; NOTE 1: SBD 6.2 Declaration Form and Annex C (Local Content Declaration-Summary Schedule) is therefore mandatory and must be a tender returnable. Forms must be completed in full and signed.

If the quantity of materials and/or products cannot be wholly sourced in South Africa, **the DTI**, in consultation with the procuring entity, will grant exemption on a case-by-case basis. **Bidder should request and obtain written exemption from the Department of Trade and Industry (DTI).** Such exemption applications should be submitted, and approvals should be obtained prior to the closure of the bid(s) concerned. **The DTI** in consultation with the procuring organ of state and the local industry will consider the exemption application on a case-by-case basis. Bidder should refer to national treasury Designated Sector Instruction Number 12 of 2016/2017 Paragraph 4.2.

CIDB Skills Development: Proposal for the% of the Construction Skills Development Goal % (CSDG) when applicable to meet the Employer’s target.

Enterprise Development: If the specific ED requirements are not achievable through sub-contracting, the main contractor is required propose development.

Job Opportunities: The table below indicates the number of jobs created and/or retained from this contract as per Local pool criteria;

Types of jobs	Target set (local-to-site)	Contractor’s Intent
General workers	100%	
Semi-skilled	70%	
Skilled	30%	
Total		

SDL&I Penalty and Performance Security: Eskom will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations. **One of the following options will apply for SDL&I performance security: -**

- For the duration of the contract, Eskom will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon fulfilment of all SDL&I obligations at the end of the contract.
- Alternatively, the Contractor shall submit a bond equivalent to 2.5% of the Contract Value and shall only be released to the Contractor upon fulfilment of all SDL&I Obligations.

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 30 days after contract award.

4.2. Subcontracting

NEC TSC3 does not make use of nominated subcontracting. Subcontracting will not be considered unless deemed necessary and all the relevant governance shall be adhered to.

4.3. Plant and Materials

4.3.1. Specifications

The Employer will have the first option to supply all spares, materials, and consumables and if unable Service Manager will request the Contractor to supply all spares, materials, and consumables as per the contract

- The Contractor is not allowed to use any materials or spares for private usage or on other Eskom sites.
- The Contractor must transport, Personnel, spares, tools, material, and consumables as requested.
- Work and QC do be done according to the Employer's regulations and procedures
- The Contractor will be responsible for the safeguarding, care, and security of all items whilst in the Contractors custody and control, until Completion of the whole of the works.
- Contractor must be "able, trained and be prepared" with the necessary PPE, equipment, tools, skills and authorised to handle any equipment, spares, tools, and materials related to the scope.

4.3.2. Correction of defects

All defects will be managed according to NEC TSC3 terms and conditions, SHEQ standards and procedures. The following key performance area will be used to ensure compliance to this contract. The Eskom contract supervisor and the contractor will sit monthly to discuss and measure the following: -

- PM compliance to measure PM executed against the number of PMs planned for the month
- Schedule compliance which will measure work orders scheduled against planned work orders
- Report duration, which will measure the timeous submission of the reports as stipulated in the contract
- Quality of the reports issued.
- Number of Non-conformances reported.

4.3.3. *Contractor's* procurement of Plant and Materials

N/A

4.3.4. Tests and inspections before delivery

N/A

4.3.5. Plant & Materials provided "free issue" by the *Employer*

N/A

4.3.6. Cataloguing requirements by the *Contractor*

N/A

5. Working on the Affected Property

This part of the Service Information addresses constraints, facilities, services, and rules applicable to the Contractor whilst he is doing work on the Affected Property

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

Access to site

- Access is limited and controlled by Plant Safety Regulations requirements.
- No employee will be allowed to access the plant or to work without access permit issued.
- All personnel to work on the plant must be registered on the Worker's Register by the Responsible Person.
- All personnel must attend induction before working on site and must obtain gate permits via the Service Manager.
- A list of employees requiring safety induction must be submitted at least 2 days in advance of arrival on site with the date and time of arrival so that the safety induction can be arranged.
- Each personnel to always have an Identification card
- Unauthorized access to site is prohibited. The personnel are expected to be always at their working site area.
- No recruitment on site or at the main access gates or any of the Employer's Premises' is allowed.
- All activities to comply with the OSHACT and Regulations
- All activities on plant must be preceded by a plant risk assessment – Risk assessment as per the Employer's standard, to be always current (Live Document)
- All work to be always done according to the construction regulations
- NO work shall be carried out without a "PERMIT TO WORK"
- Plant with a prohibitive sign attached may only be operated by appointed Eskom personnel. Any Contractor employee found tampering with such plant will be permanently removed from Site.
- The Contractor is responsible for adequate ventilation of the works.

5.2. People restrictions, hours of work, conduct and records.

The contractor keeps records of his people working on the Affected Property. The Service Manager shall have access to them at any time.

5.3. Health and safety facilities on the Affected Property

Proto team on each shift

- Medical Station and relevant staff on Site.
- Each workshop has a first aid box available.
- Yearly induction for all personnel.
- In an emergency the contract supervisor and Service Manager must notified immediately
- Ambulance and first aid facilities are available at a fee on site.

Sanitary Facilities: The Contractor's employees who work with asbestos is not allowed to use the Employer's ablution or messing facilities at the workplace during and after stripping of lagging materials, for fibres that may be attached to workers clothing, or to any other article.

Personal Protective Equipment: The Contractor supplies, maintains and ensures that his personnel always wear personal protective equipment as required per site.

Housekeeping: The Contractor's Equipment does not impair the operation of the plant or access to the plant. All debris to be removed from the plant after performing task and Contractor to always maintain good housekeeping.

Site Regulations: The latest revision Lethabo Power Station Site Regulations form part of this contract. Copies of these procedures are available on request (Any additional site regulations implemented will be applicable). The Contractor shall appoint a person who will liaise with the Employers Safety Officer responsible for the premises relevant to this contract. The person appointed shall on request supply the Employer's Safety Officer with copies of minutes of all Health and Safety

The Employer may, at any stage during the duration of this contract, refuse any employee, sub-Contractor or agent of the Contractor access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualifies in terms of the OHSACT; Perform safety audits at the Contractor's premises, workplace and employees; Issue the Contractor with a workshop order or a compliance order should Employer become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures by the Contractor or any of its employees, sub-Contractors or agents.

All work stoppages called by the Employer to be adhered to Contractor is Responsible to ensure that his Letter of Good standing is always valid as stipulated in the construction regulations point 7 (C) (iv) and the specifications 2.5.2 (iv) and 3.10. Contractor will not be allowed on site if his letter of good standing is not valid

Speed Limit: All vehicles must be driven with due consideration for personnel and property. All speed limits will be always adhered to on the premises.

Transportation of passengers / tools and equipment: Transportation of persons in open light delivery vehicles (LDV) is prohibited and will not be tolerated. It is a legal requirement to provide safe transportation of the Employer and Contractor employees – therefore the following will be enforced. Tools and equipment must be properly secured. Only authorised drivers may transport passengers. Proof must be submitted on request in terms of valid roadworthiness of the vehicle/s. The above must apply to onsite and off-site transportation of passengers. All vehicles used on site, by the Contractor will be road worthy. All road signs and traffic laws / regulations on site will be adhered to. Employees of the Contractor failing to comply will be removed from site and denied any further access.

Roads: All traffic is limited to using existing roads. The Employer recovers any costs from the Contractor that is incurred from damage caused to underground services, structures, etc., because of the Contractor not using the prescribed routes.

First aid and firefighting: Adequate first aid and firefighting equipment to be provided by the Employer. All Contractor personnel must have First aid training and Fire extinguishers to be provided by the Employer. The Contractor provides a first aid service to his employees and Subcontractors. In the case where these prove to be inadequate, like in the event of a serious injury, the Employer's medical centre and facilities are available. Outside the Employer's office hours, the Employer's first aid services are only available for serious injuries and life-threatening situations. The Employer is entitled, however, to recover the costs from the Contractor for the use of the above Employer's facilities.

Fire precautions: Any tampering with the Employer's fire equipment is strictly forbidden. All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards is kept free of obstruction and are not used for work or storage at any time. Firefighting equipment must always remain accessible. The Contractor takes the necessary action to safeguard the area to prevent injury and the spreading of the fire.

Fire protection: The provision of the Employer's standard NWS 1494 "Fire Prevention and Protection of Contractor's premises at New Works sites" shall be applicable.

Security: The Contractor shall be responsible for ensuring the security of the works, and of his plant, equipment, and materials. All these measures must be in accordance with any relevant regulations and standards and subject to the Employer's approval. To that end he shall make adequate provision for access

control, lighting and watchman to the works where required. • It is also the Contractors responsibility to ensure the security of all completed portions of the works prior to Completion

Safety and incident prevention: The Contractor shall implement and maintain an active Site Safety and Accident Prevention Programme in accordance with the Lethabo SHEQ Specifications. The overriding regulations will however be the Occupational Health and Safety Act. Incident Management, Corrective & Prevention Action Procedure to be adhered to – 14Risk IM PC-019.

Reporting of accidents: 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 Service Manager must be informed immediately of any incidents. A written report to be submitted to the Employer within 24 Hours of incidents and any damage to property or equipment

NOTE! This report does not relieve the Contractor of his legal obligations 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.

5.4. Environmental controls, fauna & flora

Please refer to section 3 above

5.5. Cooperating with and obtaining acceptance of Others

The Contractor may be required to cooperate generally with Others sharing the Affected Property with and clause 25.1 will apply. Any requirements for liaison with and acceptance from statutory authorities or inspection agencies shall be honoured by the Contractor where applicable.

It is likely that other Contractors will be working in the same area. Others might however from time to time require limited access to the same area in order to execute maintenance activities and the Contractor is to be accommodating in such instances.

5.6. Records of Contractor's Equipment

Contractor's equipment (Cell phones with Camera's, Computers, Camera's etc.) to be and signed in at security and this form needs to be kept for use when items need to leave site

- All test equipment must be calibrated and tested regularly, and certificates must be handed in to the Service Manager for record keeping
- All equipment and tools need to be marked and a list off all tools with the identification number to be provided to the Service Manager when entering site.
- All lost equipment and tools to be declared to the Service Manager and full details of incident.

5.7. Equipment provided by the Employer

To expediting the works, the Employer may make facilities and services available to the Contractor as provided at no cost to the Contractor. The Contractor will not receive any reimbursement or make any change to the beneficial use of the facilities or services.

- The Employer may allow the Contractor, for the execution of the works, the reasonable use of its workshop, tools, and equipment, provided that the Employer's own work and business are not interfered with in any manner by such use. The Contractor shall leave all workshops, tools, and equipment in as good a condition as he found them, fair wear and tear excepted, and shall be liable for any damages by the Employer because of any act of negligence by the Contractor, his employees or sub-contractor while using such workshop, cranes, tools, and equipment.
- The Contractor is responsible for the repair, replacement, or correction as necessary of all pieces of tools and equipment supplied by the Employer which are damaged and/or lost whilst in the Contractor's custody and control.
- The Contractor must ensure that any one of his employees or Sub-contractors, operating hoist equipment belonging to the Employer, is authorised by the Employer.

5.8. Site services and facilities

5.8.1. Provided by the *Employer*

The Employer may at his own discretion supply any other Plant and Materials as required by the Contractor to provide the services.

Telecommunications: The Contractor arranges with the Employer for the use of telecommunication services. The use and the cost associated with the telephone will be for the Contractor's account. Failure to pay the amounts due will result in the Employer deducting the amounts from any tax invoice/ payment certificates, handed in to the Employer for payment.

Temporary cabling: The Contractor will be provided with all temporary wiring and cabling to lead power from the point of supply to the various points where it is required. The Contractor maintains and removes it on Completion

Scaffolding: The Employer makes available scaffolding, free of charge to the Contractor. The Contractor will indicate in the program the need for scaffolding, the size thereof, as well as the loading requirements and the duration of use and communicate it to the Employer, on submission of the program. Under no circumstances is the Contractor or his employees allowed to use scaffolding which have not been certified safe for use. The delay in scaffolding, in the event of the Contractor failing to indicate the need thereof in the program, is not considered grounds for additional time or compensation.

Compressed Air: Under no circumstances is the Contractor or his employees allowed connecting to any piped services without the permission of the Employer. The Employer attempts to make available compressed air (oil free & dry and at selected points) to a pressure reaching lows of 620 kPa and highs of 640 kPa. No guarantees of air supply quality are given, and air supply breaks of some duration may occur without a warning. The variation of pressure in the air supply, or breakdown in the supply, is not considered grounds for additional time or compensation.

Water: Under no circumstances is the Contractor or his employees allowed connecting to any piped services without the permission of the Employer. The Employer makes available free of charge, potable water as required for the purpose of this Contract. The Employer does not guarantee continuity of supply and in such cases the Contractor makes his own provision for standby supplies to maintain continuity. The Employer makes available, free of charge, demineralized water as required for the works. The variation of pressure in the water supply, or breakdown in the supply, is not considered grounds for additional time or compensation.

Supply of Electricity: The Employer supplies 220 & 380 V AC power supply at existing points for the purpose of the works only. All installations or equipment complies with all relevant safety regulations and requirements. Contractor is to supply own 220 or 380 VAC extensions.

Under no circumstances is the Contractor or his employees allowed connecting to any electrical supply without the permission of the Employer. 220V AC 50Hz, 30A and 380V, 60A power supplies are available. All installations or equipment connected to a supply of electricity provided free of charge by the Employer must comply with all relevant safety regulations and requirements. Failure to comply with the safety requirements may lead to immediate disconnection. No guarantees of power supply quality are given, and power supply breaks of some duration may occur without warning, and it shall not be grounds for additional time or compensation.

5.8.2. Provided by the *Contractor*

The contractor provides all necessary testing equipment for testing purposes and stores them as may be required in the area designated by the service manager .

Access permits: All applicable Contractor personnel shall be issued with access and vehicle permits (Contractor Permit) which will contain the following information:

- Name
- ID Number
- Company

- Validity date

All Contractor permits must be submitted to Protective Services when the workers leave the Site after Completion of the works. The Contractor applies with Lethabo Power Station Protective Services for the issuing of permits. The Contractor submits his application at least 24 hours prior to entering the Security area. This application form must be delivered to Protective Services or can be faxed. The form contains the following information:

- Employee Name.
- Employee ID Number.
- The Employer's Safety Co-ordinators signature.
- The Employer's Service Manager's signature.
- Copy of the first page of the ID book of every employee of the Contractor, photocopied to reduce the size to 65%.

The form is appended to the Contractor's Safety Manual, referred to in Section 2.3.2 (b). The Contractor's visitors and personnel shall always conform to the security arrangements in force at the Site. The Chief of Protective Services may, with valid cause, remove any of the Contractor's personnel from Site, either temporarily or permanently. He may deny access to the Site to any person whom, in the opinion of the said Chief of Protective Services, constitutes a security risk. No unauthorized vehicles will be allowed on Site. Contract vehicle application should be directed to the Service Manager.

The Contractor will be limited to the working areas associated with the works. The Contractor is forbidden to enter any other areas and must ensure that his employees abide by these regulations.

Parking inside the Power Station is allowed. The parking application must be addressed to the protective services. All Contractors will supply protective services with their vehicle's registration numbers. No recruiting of casual labour may be done on Eskom premises, including the area outside the power station security gate. The Contractor obtains the access procedures, from the Service Manager, which may change depending on the prevailing security situation.

5.9. Control of noise, dust, water, and waste

All necessary and relevant PPE must be always used when entering or working on plant

- Risk assessments must be completed before commencing with any task to be always current (Live Document)
- All relevant procedures to be always used

5.10. Hook ups to existing works

The Employer reserves the right to have any of the Contractor's personnel removed off site without cancelling the contract if, in the Employer's opinion, it is warranted.

- The Employer reserves the right to request disciplinary / corrective action if, and when, required.
- The main Contractor is accountable for the management of their sub-contractors and suppliers and to ensure that the applicable legal and the Employer's requirements (applicable during contract execution) are complied with by the sub-contractors and suppliers (all tiers). If there are non-conformances / non-compliance to applicable legal and the Employer's requirements identified, then the Main Service Provider/Provider/Principal Contractor will be penalised.
- The Contractor shall operate under the direction and instructions of the Employer's Manager, or such person/people as may be appointed by him if not in conflict with the Occupational Health and Safety Act and the Generation Plant and Safety Regulations.
- The Contractor shall maintain a high standard of workmanship expected by the Employer and shall comply with any quality assurance and quality procedures implemented by the Employer.
- The Employer reserves the right to have any of the Contractor's personnel removed off site without any compensation to the Contractor in the event of the Contractor's personnel being in contravention with the OHS Act or any of the Employers rules, regulations, and procedures
- The Employer reserves the right to terminate the contract, once 3 non-conformances / PIR's are raised against the Contractor
- The Employer reserves the right to request disciplinary/corrective action if, and when, required.

- The Contractor must submit Curriculum Vitae of its entire staff prior to work commencing on site.
- The Contractor must submit certified copies of qualifications and or certificates of its entire staff prior to work commencing on site.
- The Contractor will be responsible for the full payment of the legislative training costs for every employee at the Contractor's cost if the employee must redo the training due to failing at the first attempt as well as the subsequent attempts that follows until the employee is authorised.
- All unknown / known services will be brought to the attention of the Contractor by Service Manager. Should the Contractor encounter any other services in the work area, he will immediately bring them to the attention of the Service Manager who will issue instructions as to what actions are to be taken.
- No welding will be allowed on site unless permission is granted in writing by the Service Manager.
- The Employer's carries no responsibility for unforeseen delays unless such a delay is negotiated within 24 hours of the occurrence and written agreement is submitted by the Employer.
- Care must be taken to prevent damage to any surroundings such as the plant, roads, and equipment in and around existing buildings.
- The Contractor and his employees will be required to conduct themselves at all times in proper and orderly manner while on the Employer's premises.
- The Contractor and his employees may only smoke in the allowed / designated areas.
- The Employer will take immediate steps to institute criminal investigations in the event of any suspected criminal acts e.g., theft etc.

5.11. Tests and inspections

5.11.1. Description of tests and inspections

Clause 40.1 of TSC3 will apply to the tests and inspections carried out by the Contractor and the Service Manager and others.

5.11.2. Materials facilities and samples for tests and inspections

All materials facilities and samples for tests and inspections the Contractor and the Employer are to be provided according to clause 40.2 of NEC TSC3.

6. List of drawings

6.1. Drawings issued by the *Employer*

There are no drawings applicable to this contract.