PART 3: SCOPE OF WORK

C3.1: EMPLOYER'S SERVICE INFORMATION

Contents

1 Description of the *service*

1.1 Introduction

The intent of this document is to align Kendal Power Station maintenance and outage scope of work to the Eskom quality management system. Plant shutdowns are inevitable in a coal fired power station; therefore, units must be maintained at pre-determined intervals to ensure that they are sustainable, reliable, and safely operated. This document will outline the sootblower system scope of work to be performed by the contractor during outages and planned and running maintenance opportunities for the duration of 5 years on an "as-and-when" required basis.

The sootblowing system consists of 88 wall blowers,40 SH, RH and Econ lances, 4AH lances and 2 gas probes. Sootblowing is used to achieve optimum cycle efficiency by increasing the overall boiler heat transfer in the boiler. The sootblowing steam is received from the SH div panel and CRH line to charge the system for the wall blowers and the lances, the preheaters make use of aux steam from other units. Steam is controlled by multiple valves, which include HCB11, HCB12, HCB80 and HCB 81.

1.1.1 Scope

This document outlines the planned/running Maintenance and Outage Scope of Work for the Kendal sootblowing system for a duration of 5 years.

1.1.1.1 Purpose

The purpose of the scope is to cover all work to be done on the soot blower system during running maintenance and outage. This is to clarify the work activities to the potential contractor who will provide Eskom Kendal Power Station with the maintenance, operating support and outage activities.

1.1.1.2 Applicability

This document shall apply to the Sootblowing Plant at Kendal Power Station.

1.1.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

1.1.2.1 Normative

[1]	ISO 9001	Quality Management Systems.
[2]	ISO 14001	Environmental management Policy Informative
[3]	*1023822	Kendal outage Philosophy
[4]	GPM0072	Outage Management Procedure.
[5]	*1017357	Non-Conformance, Corrective and Preventive Action
[6]	*1017482	Control and Approval of Quality Plan
[7]	*1019284	Personal Protective Equipment Procedure
[8]	*1015807	SANS OHAS 18001:2011 Management System
[9]	*1017372	Occupational Health and Safety Hazard Identification
[10]	240-56355225	Welding of High Pressure, Temperature Standard

1.1.3 Abbreviations

Abbreviation	Description
ISO	International Organization for Standardization
NCR	Non-Conformance Report
PS	Power station
QCP	Quality Control Plan
SOW	Scope of Work

1.1.4 Definitions

GO	< 6 weeks	GENERAL OVERHAUL This is a full turbine centreline outage Boiler statutory inspection/tests and refurbishment Boiler & turbine auxiliary plant refurbishment
IN	1 - 2 weeks	INSPECTION For inspection purposes only to determine scope of work or obtain history; i.e. fans, boiler, ducting, air heaters and precipitators/FFP
IR	2 - 4 weeks	INTERIM REPAIRS This is done between a GO and MO Scheduled to perform critical repairs to prevent plant failures until the next scheduled outage like boiler tube leak prevention, air heater- and precipitators/FFP repairs/washing
MO	4 - 6 weeks	MINI OVERHAUL This is a partial turbine centreline outage Scheduled at intervals between GO's to perform outage related refurbishment work that: Prevents the unit to run from GO to GO, typically boiler, air heater, burner and ducting work etc. GO activities that can fit in during the outage without extending the duration to relieve resource risks and congestion during GO's, typically turbine steam admission valve refurbishment and generator inspections
ST	As required	SHORT TERM PLANNED REPAIRS Any planned work required outside of the normal outage philosophy Planned and requested 28 days in advance Readiness indicator and ORC Risk Report to be submitted with the request

1.1.5 Roles and Responsibilities

This document shall apply to all Kendal Power Station outages and running and shutdown maintenance opportunities being declared by the Kendal Management Team. Every department plays a pivotal role in making sure that outages and running and shutdown maintenance opportunities are successful, and units are returned to service on time, and efficiently. Refer to the Kendal Power Station business Organisation Roles and Responsibilities*1017523. Below are the roles and responsibilities of each department:

1.1.5.1 Maintenance Department

- Develop optimized maintenance networks,
- Management of contract services provided during maintenance shut-down opportunity,
- Conduct and ensure quality control of activities during maintenance shut-down opportunity,
- Management of time cost and quality on maintenance shut-down opportunity,
- Submit financial plan spreadsheet,

1.1.5.2 Outages Department

- Develop optimized maintenance and Outage networks,
- Management of contract services provided during Outages,
- Ensures there's quality control personnel to conduct QCing of activities during Outages,
- Management of time cost and quality on Outages,
- Management of time cost and quality on Outages,
- Develop Kendal specific outage readiness indicator as per generation for Outages and maintenance shut-down opportunity planning principles,
- Submit financial plan spreadsheet,
- Ensure Outage Postmortem is conducted with Contractor of all work executed.

1.1.5.3 Engineering Department

- Is responsible for the determination and compilation of the maintenance shut-down opportunity SOW
- Participate in the maintenance shut-down opportunity execution review.
- Formulate the contents of the maintenance shut-down opportunity execution
- Ensuring plant and documents are technically compatible
- Proposing and implementation of modifications
- Assist with the review of quality control plans

1.1.5.4 Technical Support Department

- The supervision of maintenance shut-down opportunity activities to ensure quality and productivity targets are achieved
- The control of spares and consumables
- The development of work instructions and procedures
- The developments of bill of materials
- Technical review of work instructions at pre-determined intervals
- Provision of quality work history
- The notification of all failures not attributed to normal wear and tear and/or frequent/repeated failures of components.
- To assist in the investigation of incidents and the root cause analysis
- Monitor spares stock holding

1.1.5.5 Inventory Management Department

- Maintaining the approved stock levels

- Storage of stock according to approved methods
- Forward planning to ensure stock availability
- Ensure reviewing of stock levels
- Stock accuracy and control
- Stock Optimisation
- Issuing of materials to end users
- Receiving of goods

1.1.5.6 Safety and Environment Department

- Implementation of SHE systems
- Ensure compliance with OHS Act and putting in place of enforcement mechanism
- Regular internal communication at all levels by way of meetings and discussions concerning health and safety
- Identify hazards in different areas and conduct task risk assessments regarding employees acts
- Coordinate and identify SHE training gaps
- Development and implementation of safety policies and procedures
- Report incidents

1.1.5.7 Quality and Assurance Department

- Ensure quality control processes are in place.
- Ensure adherence to Eskom operating procedures, policies, guidelines and plant safety regulations
- Review and accept quality plans

1.1.5.8 Contractor

The responsibilities of the contractor are as per NEC and compliance to the relevant standards.

1.2 The Contractor ‘s Scope

1.2.1 General Requirements for the Works

Maintenance and upkeep of the sootblower system at Kendal Power Station U1 – U6 for a period of 5 years.

1.2.2 Description of the Work

The supply of labour, tools, equipment, consumables, supervision, management, logistics, and support services for the sootblowing system at Kendal Power Station from Unit 1 – 6 for a period of 5 years.

1.2.3 Detailed Scope of Work

The below scope of work identifies activities to be done during running and shutdown maintenance opportunities and outages.

1.2.3.1 Outage Detailed SOW

- All Poppet valves, lance gearboxes, and wall blowers are to be removed from the boiler within **4 days** from access to the plant and delivered to the contractor’s workshop and to be ready for inspection within **7 days** from access to the plant.
- A walk down of the plant to be done with an Eskom representative one month and one week prior to an Outage to identify defects, the defects are the Employer cost, when equipment is brought back and fitted any defect found other than the defects identified before the Outage the cost is for the Contractor.

- SOW As per table below.
- Contractor must report to the EMD and C&I Outage controller when mechanical work is complete.
- Assist with re-commissioning at the end of the Outage.as per re commissioning procedure 1016517 or HCB-PO-001.

SOOT BLOWER PLANT		
Item	**Component**	**Description of work**
	POPPET & AIR RELIEF VALVES	
All poppet & air relief valves	Wall blower, lance blower and air heater blowers	Inspect all poppet and air relief valves and draft availability and defect report.
		Remove air gauge and copper piping
		Remove all poppet valves from the boiler, temporarily blank the pipe and transport to the contractor's workshop
		Dismantle poppet valves
		Inspect all the spares and replace if necessary
		Sand blast body and check for cracks using dye penetrant (PT)
		Pressure test and MPI test poppet valve
		Reassemble poppet valves
		Replace air gauge and copper piping
		Re-install poppet valve into the boiler
		Re-install poppet valve
WALL BLOWERS - IR 2F		
All wall blowers		Inspect all wall blowers and draft availability and defect report.
		Remove from boiler.
		Dismantle all lance blowers gearbox.
Gear reducer assembly		Check for wear and replace if necessary. Reassemble using new oil seals.
Feed tube		Check alignment, do thickness test, check nozzle sizes, scoring and erosion. Repair or replace if necessary.
Screw tube		Check straightness and thickness. Repair or replace if necessary.
Nozzle		Check for cracking. Repair or Replace if necessary.
Gear and bearing assembly		Check for wear. Repair or replace if necessary.
Drive pins		Check for wear. Replace if necessary.
Guide flange and valve operating cam		Check for wear. Repair or Replace if necessary.
Guide bar assembly		Ensure that the pawls are operating freely. Repair or Replace if necessary.
Lubrication		Lubricate where required.
All wall blowers		Re-assemble gearbox blower.
All wall blowers		Re-fit blower gearbox to the boiler.

LANCE BLOWERS – IK 545B		
All lance blowers		Inspect all lance blowers and draft availability and defect report.
		Remove from boiler.
		Dismantle all wall blowers.
Gear reducer assembly		Disassemble, check for wear and replace if necessary. Reassemble using new oil seals.
Feed tube		Check alignment, do thickness test, check nozzle sizes, scoring and erosion. Repair or Replace if necessary.
Nozzle		Check for cracking. Repair or Replace if necessary.
Gear and bearing assembly		Check for wear. Repair or Replace if necessary.
Air relief valve		Pressure test. Repair or Replace if necessary.
Lubrication		Lubricate the gear reducer
All lance blowers		Re-assemble blower.
All lance blowers		Re-fit blower to the boiler.
AIR HEATER SOOT BLOWER LANCES - IK 510		
Lance tubes	HCB91AN201	Check for corrosion, do thickness test, surface damage and straightness. Repair or Replace if necessary.
Feed tubes	HCB91AN201	Check for corrosion, do thickness test, check nozzle sizes, surface damage and straightness. Repair or Replace if necessary.
Nozzles	HCB91AN201	Check for cracking and corrosion. Repair or Replace if necessary.
Lance blower	HCB91AN201	Re-assemble blower.
Lance blower	HCB91AN201	Re-fit blower to the boiler.
Lance tubes	HCB92AN202	Check for corrosion, do thickness test, surface damage and straightness. Repair or Replace if necessary.
Feed tubes	HCB92AN202	Check for corrosion, do thickness test, check nozzle sizes, surface damage and straightness. Repair or Replace if necessary.
Nozzles	HCB92AN202	Check for cracking and corrosion. Repair or Replace if necessary.
Lance blower	HCB92AN202	Re-assemble blower.
Lance blower	HCB92AN202	Re-fit blower to the boiler.
Lance tubes	HCB91AN203	Check for corrosion, do thickness test, surface damage and straightness. Repair or Replace if necessary.
Feed tubes	HCB91AN203	Check for corrosion, do thickness test, check nozzle sizes, surface damage and straightness. Repair or Replace if necessary.
Nozzles	HCB91AN203	Check for cracking and corrosion. Repair or Replace if necessary.
Lance blower	HCB91AN203	Re-assemble blower.
Lance blower	HCB91AN203	Re-fit blower to the boiler.
Lance tubes	HCB92AN204	Check for corrosion, do thickness test, surface damage and straightness. Repair or Replace if necessary.
Feed tubes	HCB92AN204	Check for corrosion, do thickness test, check nozzle sizes, surface damage and straightness. Repair or Replace if necessary.
Nozzles	HCB92AN204	Check for cracking and corrosion. Repair or Replace if necessary.
Lance blower	HCB92AN204	Re-assemble blower.
Lance blower	HCB92AN204	Re-fit blower to the boiler.

Drain valves orifice	HCB*BP*	Inspect all soot blowers drain valves orifice. Ensure that the piping is clean. Replace if severe steam cutting is evident.
All Lance Gearbox		Remove from plant and send to workshop. Disassemble the gearbox, clean the components and inspect for damage. Repair or replace if necessary.
LANCE BLOWER CARRIAGE (IK 540 & IK 545B)		
Cam and arm assembly		Inspect all cam and arm carriage and draft availability and defect report. Disassemble the assembly, clean components, inspect components and replace damaged ones, and re-assemble all components.
Roller brackets assemble		Disassemble the roller bracket assembly, check rotating freely, clean and replace damaged components.
Roller brackets assemble		Replace all ball bearings, inspect the shafts and replace if damaged. Re-assemble the components and test if all are working properly.
Roller bracket assembly		Adjust the angle of rollers
GAS PROBE ASSEMBLY		
Gearbox reducer		Disassemble the gearbox, clean the components and inspect for damage. Repair or replace if necessary
Pulleys		Inspect pulleys for any damage
Roller bracket assembly		Disassemble, inspect, clean, replace damaged, and re-assemble the roller assembly.
RECOMMISSIONING		
Lubrication		Lubricate where required as per the Maintenance strategy
Testing		Recommission soot blower system using recommissioning procedure *1016513.

1.2.3.2 Maintenance Detailed SOW

[1] The *Contractor* must have a permanent site crew during normal working hours comprising of:

- X1 Site Manager.
- X1 Site Supervisor.
- X1 SHEQ Officer.
- X6 Mechanical Fitters (1 per unit).
- X6 Semi-Skilled (1 per unit).
- X3 Electricians (1 per 2 units).
- X1 Rigger.
- X1 Rigger Assistant
- X1 Boiler maker. On an as and when required basis

[2] The Contractor will have the artisans authorised to take out permits under Low Voltage Regulations within (3) months from the Contract start date to the end of the Contract.

[3] The Contractor will be required to perform stand by duties whereby one authorised artisan and one semi-skilled must be on standby at all times during after-hours including weekends and holidays, this will be for the duration of the contract.

[4] The Contractors required working hours are from 07:15 to 16:30 Monday to Thursday and from 07:15 to 12:15 on Friday for every normal working week.

[5] The contractor shall be required to support operating in conducting daily sootblowing activities (including weekends), as per the operating work instruction, Soot-blowing: boiler soot blower schedule work instruction *1016516

[6] The contractor shall Perform pre and post sootblowing walk-down and fill check sheets and all required documents for record keeping of the system.

[7] The Contractor is to perform 1 weekly inspections on all Units 1-6, if only partial inspection is done the outstanding inspections must be complete within 3 days if for some reason it cannot be done the Contractor is to report this to the Mechanical system engineer within 24 hours. Weekly system status report must be written and sent to the mechanical maintenance supervisor, the tech support personnel and the system Engineer.

[8] The Contractor must do all related Preventative Maintenance schedules, write a report indicating the status and the blowing pressures of each blower and submit the defects to the Employer representative for immediate notification creation.

[9] The Contractor must address and complete all submitted Work Orders on a daily basis as prioritised by the Employer representative

[10] All generated Work Orders from the employers Preventative Maintenance Scheduled inspections as well as work orders loaded by the employers' employees during plant walk downs must be carried out within three (3) working days by the Contractor. The (3) three working days will be effective from the loaded date of the Work Order.

[11] If defects are noted, they must be reported to the Works management, and the defect number to be recorded and tracked by the Contractor, the tracking method will be discussed on start of Contract by the employer's representative

[12] The Contractor is responsible to follow the employers SMP's for each activity

[13] The Contractor shall provide transport from home to work for all the contractors' employees. No employees shall be transported on the back of LDVs not even if the LDVs have canopies

[14] All material spares etc. at the point of termination or expiry of the Contract on site are to be handed over to the Employers Representative. The Contractor will not be allowed to remove anything but personal property from site.

[15] For every stuck blower, investigation must be done with the maintenance tech support personnel, system Engineer and the report must be developed by the contractor.

[16] The site manager to attend all the meetings deemed necessary by the contract manager.

[17] The Authorised Supervisor must attend the soot blower task team meeting and the Boiler Tube Leak Forum and present the status of the soot blowers.

[18] Familiarize yourself with the soot blower system maintenance strategy (Procedure *1024717). And perform dry running soot blower system during re-commissioning after Outage as per procedure 1016517 or HCB-PO-001

1.3 Document Content

1.3.1 Records and History Requirements

- Outages and maintenance shut-down opportunity Inspection reports
- 04 defects
- Recommendations from incident investigations
- Engineering change requests
- RBO

1.3.2 Quality control Plan

A quality control package that includes final scope of work, quality control plan, safety files, work execution procedures etc. from the contractor will be sent to technical support and engineering from the outage controller for approvals. Refer to Kendal Quality Management Manual *1017374.

1.3.3 Competence

Refer to Kendal Quality Management Manual *1017374. Section 6.2.2

1.3.4 Equipment requirements

Refer to Kendal Quality Management Manual *1017374. Section 7.6

2 Management strategy and start up.

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

a) The *Contractor* to submit a first plan for acceptance within (one) 1 week of the contract start date.
b) The *Contractor* submits a program in MS Project / Primavera format (confirmation required upfront)
The program includes:

- Activities
- Durations in hours
- Predecessors
- Successors
- Total float
- No constraints (linking to be done properly)
- No resources
- No unnecessary calendars (remove all)
- No empty lines

Daily feedback on progress required for duration of each task order program.

c) Flexibility with the start of outages

- The outage start date is stated on the Task Order
- Movement to Outage dates can take place due to the country's demand for electricity.
- Any movement to Outage dates is to be communicated in writing by the *Service manager* at least 48 Hours before outage start. Notification of change to the outage date to the *Contractor* before 48 Hours to the outage start date will have no claims for compensation.
- A new Task Order is to be issued, which specifies the revised Outage start date as soon as the new start date is available.

d) *Service manager* to accept or reject the plan within the one (1) week period.
e) The plan should include starting dates and end dates of the service period.
f) The plan should have provision for time risk allowances, health and safety requirements.

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:**
Kick off meeting	At the start of the Contract	Kendal Power Station / MS Teams	*Service Manager,* other parties and *Contractor*
Toolbox Talk/Prioritisation meeting	Daily	Kendal Power Station	*Employer, Contractor and* other parties
Safety Hour	Tuesday, 08:00	Kendal Power Station	*Employer, Contractor*
Safety Meeting	Monthly	Kendal Power Station	*Employer, Contractor and* other parties
Outage Meeting	As an when scheduled	Kendal Power Station	*Employer, Contractor and* other parties
Planning Meeting	Weekly	Kendal Power Station	*Employer, Contractor*
Risk register meeting	When the need arises	Kendal Power Station	*Employer, Contractor and* other parties
Overall contract progress and feedback meeting	Last Friday of every month end	Kendal Power Station	*Service Manager* and *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

- The *Contractor* must provide the following personnel as a minimum for the duration of the contract
    - X1 Site Manager.
    - X1 Site Supervisor.
    - X1 SHEQ Officer.
    - X6 Mechanical Fitters (1 per unit).
    - X6 Semi-Skilled (1 per unit).
    - X3 Electricians (1 per 2 units).
    - X1 Rigger.
    - X1 Rigger Assistant
    - X1 Boiler maker. On an as and when required basis
- The *Contractor* must be familiar about the conditions and scope of work contained in this contract and capable to execute the work.
- The *Contractor* ensures that only competent persons be allowed to provide the service.
- The *Contractor* ensures that all necessary tools and equipments are available for the service.
- The *Service manager* is entitled to verify the qualifications of the *Contractor'* and *Service manager* may, having stated his reasons, instruct the *Contractor* to remove an employee. The *Contractor* then arranges that, after one day, the employee has no further connection with the work included in this contract.
- The *Contractor* may not replace any of the key persons, without prior written request and approval thereof from the *Service Manager.*

2.4 Provision of bonds and guarantees

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

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

2.5 Documentation control

Document management control will be handled as per the *Employer's* document and records management procedure 32-6, 32-1 and 32-21 which is obtainable from the *Employer's Representative*. All communication will be in writing.

- Each instruction, certificates, submissions, proposal, records, acceptance, notification, reply and other communication which this contract requires is communicated in the form of which can be read, copied and recorded.
- All procedures, work instructions, forms and all contractual communications must be controlled for the duration of the contract.
- All contractual communications will be in the form of properly compiled letters or forms attached to emails and not as a message in the email itself.
- Monthly and weekly reports to be discussed, compiled and handed over to the *Employer's representative.*
- All NEC standard forms should be used, e.g. Task orders, Early Warnings, Defect certificates and Assessments.
- After all the work has been completed, the data package is to be submitted within one week after the repairs.
- On completion of the contract all documents, records and files relating to the contract need to be submitted to the *Service Manager* for record keeping.

2.5.1 Documentation applicable Maintenance

- The *Contractor* must submit QCP's for each activity with *Employer's* reviewed hold and witness points. QCP's submitted by the *Contractor* must be approved by *Employer's* Representative before any activities commences.
- The *Contractor's* employees' names on standby must be sent to the *Employer's* Representative via email, 09:00 in the morning of each first working day of the week and confirmed accepted before noon the same day.
- Daily strength sheet to be submitted to the *Employer's* Representative before morning meeting.
- Cost sheet is to be submitted at the end of every month showing planned cost and actual cost to the *Employer's* Representative via email, cost sheet to be agreed upon start of the contract.
- Inspection sheet to be submitted with 24 hours after inspection **(if only partial inspection takes place this must also be sent within 24 hours)** to the *Employer's* Representative and Mechanical System Engineer. Inspection format to be issued by Mechanical System Engineer to the *Contractor* at the start of the contract.
- A daily log sheet is to be submitted to the *Employer's* Representative indicating work that took place the day before and work to be done for the day by the *Contractor*.
- Daily update of all defects found either from EMD, C&I and Mechanical, this format to be discussed after conclusion of contract with the *Employer's* Representative.

2.5.2 Documentation applicable Outage

- Safety files, Quality plans and QCP documents to be submitted by the *Contractor* and approved before Outage work commences as per client requirements, six weeks in advance.
- An access sheet which is available from the *Employer's* Representative to be signed by the *Employer's* Representative before access into the Boiler, this is to confirm there are no personal working above the contractor.
- Budget quotation for Outage work to be submitted by the *Contractor* before work is to commence, budget quote to be submitted 3 months in advance.
- Planned outage scope of work to be issued to the *Contractor* from the *Employer's* Representative, 6 months in advance.
- All QCP's to be signed off before payment will take place.
- QCP's are a live document, and an audit may be required at any time and will be made available as and when required.

2.6 Invoicing and payment

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

The *Contractor* shall address the tax invoice to
Eskom Holdings SOC Ltd

Kendal Power Station
Private Bag X7272
Emalahleni
1035

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager;*
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

All invoices must be submitted to invoiceseskomlocal@eskom.co.za after the service have passed the quality control processes which include approved service entry.

If there is a Cost Price Adjustment (CPA) on your invoice, it is recommended that the *Contractor* issue a separate invoice for CPA so that if there are any issues on the CPA the rest of the invoice can be paid while resolving the CPA issues.
It is important that the value stated on the Invoice must be the same as the value stated on the Order. If the invoice value is different from the Order value payment of the invoice will be delayed. It is strongly recommended that if there are any discrepancies on the Invoice, it be rectified BEFORE it is submitted for payment.

2.7 Contract change management

Any item that affects the prices or has the potential to do so, is immediately communicated to the Service *Manager* via an early warning and/or followed by a claim for compensation event with a quotation.
After consideration, approval may be given by the Service *Manager,* and the *Contractor* may implement the compensation event accordingly.
All claims will not necessarily be approved as a compensation event nor do quotes have to be accepted unchanged since the Service *Manager* performs an evaluation and approves justifiable costs only.

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

The *Contractor* keeps accurate and complete books of accounts, records and other evidence relating to the actual costs. Records and accounts must reflect all the work done on the contract. These are open to audit. All documentation is kept by the *Contractor* for a period of five (5) years following completion of the contract. This information must be kept up to date at all times.

The *Contractor* may be requested to submit to the delegated *Service Manager* proof of costs incurred, which may include the following:

- The number and grading of employees within the working areas.
- The number and grading of employees outside the working areas.
- Copies of their daily time cards.
- Cost allocation.
- Payroll registers.
- Schedule of equipment and timesheets, and
- Any other information the *Service Manager* reasonably requires.

2.9 Insurance provided by the *Employer*

As per Core Clause Z12.2 stated in C1.2a TSC3 Contract Data (Data Provided by the *Employer*) of this NEC3 TSC3 document.

2.10 Training workshops and technology transfer

Kendal Power Station will from time to time schedule Plant Safety Regulations training, it is the responsibility of the *Contractor* to book his personnel for the training.

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

2.11.1 Information and other things

All records, data books, inspection reports, access cards, etc related to the works.

2.12 Management of work done by Task Order

The *Service Manager* issues a Task Order to the *Contractor* which specifies clearly the work to be provided, additional specifications and procedures and any other constraints the *Contractor* complies with in providing the works. The Task Order is issued before the *Contractor* provides the work.

The *Service Manager* issues Task Order to the *Contractor* in a timely manner that allows the *Contractor* to properly plan the work within the time periods stated on the Task Order.

The *Service Manager* issues to the *Contractor* any information relative to the *Employer's* need and circumstance surrounding forecast future work required from the *Contractor*. This information allows the *Contractor* to provide staff in a cost-effective and efficient manner.

No work is to start unless a task order is given by *Service Manager*.

Emergency Work:

The *Service Manager* may issue a verbal instruction to the *Contractor* to undertake emergency work. This verbal instruction is confirmed in writing within five (5) days from when the instruction is issued.

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The principal contractor and all appointed contractors will comply with all the legislation, including Eskom health and safety procedures pertaining to this project minimum being:

3.1.1 Occupational Health and Safety act 85 of 1993 and Regulations
3.1.2 Compensation for Occupational Diseases and Illnesses Act 130 of 1993
3.1.3 Basic Conditions of Employment Act 75 of 1997
3.1.4 National Environmental Management Act 1998 (Act 107 of 1998).
3.1.5 Environment Conservation Act 1989 (Act 73 of 1989).
3.1.6 National Road Traffic Act 93 of 1996.
3.1.7 Project SHE Specification provided.
3.1.8 SANS Standards –Contractor shall use the relative standards applicable to the project.
3.1.9 Eskom Plant Safety Regulations
3.1.10 National Disaster Management Act Covid-19

3.2 Environmental constraints and management

The *Contractor* provide Eskom with the copy of:

- Environmental Policy in terms of ISO14001:2015
- A detailed signed Contractor's Environmental Management Plan (EMP) pertaining to site specific activities.
- Waste Management Plan

3.3 Quality assurance requirements

The contractor shall comply with the latest ISO 9001:2015 Quality management systems-requirements. The documented management system shall be available and implemented and effective as per the ISO 9001:2015 QMS standard requirements. The contractor shall meet the minimum requirements stated in the Eskom supplier Quality Management Specification 240-105658000 or QM-58 and ensure that all these requirements are met before contract award/execution as per the QM-58 such as Contract Quality Plan, QCPs and other related procedures or documented information which are required during tendering process.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed

Procurement or SDL&I to provide information.

4.1.2 BBBEE and preferencing scheme

Procurement or SDL&I to provide information.

4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor*'s ASGI-SA

The *Contractor* shall keep accurate records and provide the *Service Manager* with reports on the *Contractor*'s actual delivery against the above stated ASGI-SA criteria.

The *Contractor*'s failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.2 Subcontracting

4.2.1 Preferred subcontractors

SDL&I to provide information.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

SDL&I to provide information.

4.2.3 Limitations on subcontracting

SDL&I to provide information.

4.2.4 Attendance on subcontractors

SDL&I to provide information.

4.3 Plant and Materials

4.3.1 Specifications

The *Contractor* shall adhere to the following standards listed below:

1. OHSA Occupational Health and Safety Act 85 of 1993
2. GGSS 0423 Low Pressure Valves
3. 36-775 Control of Plant Construction, Repair and Maintenance Welding Activities
4. 32-631 Eskom approval of personnel performing quality related special processes on Eskom Plant

4.3.2 Correction of defects

4.3.2.1 Defects Correction Period

- Due to the different nature of defects, and the different risks associated with trips and load, the defect correction period as specified in the Contract data, varies per defect. The priorities are set by the Supervisor, line Manager and Operators.
- The *Contractor* shall ensure that he/she can be contacted by the *Employer* at any time.
- The *Contractor's* standby personnel shall carry cell phones/radios to facilitate quick response.

4.3.2.2 Breakdowns

Normal Maintenance:

- During normal maintenance the *Contractor* shall return the plant within a Lead time of one (1) week.

Emergency Breakdown:

- During emergency breakdown the *Contractor* shall return the plant within a Lead time of 24 hours.

Major Breakdown:

- In the event of major breakdown, a repair plan of action must be submitted to the *Employer* within 4 hours.
- Repair work to commence on the exact time agreed between the *Employer* and the *Contractor* on this plan of action.

4.3.3 Plant & Materials provided "free issue" by the *Employer*

- The Employer will provide power supply, water and land for storage of equipment and material.
- The Employer will supply all the necessary material required to execute the works. Once these are handed over to the Contractor, the Contractor is responsible for ensuring safeguarding of this material.
- Should the Contractor need to use of any od the Employer's equipment, including compressed air, electricity, water supply and mobile crane, it must be specified by the Contractor. The Contractor does not guarantee continuity of supply of any of these items.

4.3.4 Cataloguing requirements by the *Contractor*

The Contractor shall assist the Employer with cataloguing of spares were necessary if the need arise.

5 Working on the Affected Property

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

Kendal Power station is a national key point site, the *Contractor* will be expected do Kendal safety induction training which will provide the contractor with all the applicable regulations when coming to collect or deliver the equipment at Kendal.

Site access permits and gate passes will be organised by the *Service manager* or his or her delegation.

5.2 People restrictions, hours of work, conduct and records

The *Contractor* personnel to work the same working hours as Eskom personnel which are as follows:

Monday to Thursday -07:15 to 16:30
Friday – 07:15 to 12:15
Lunch break – 12:00 to 12:30

The *Contractor* must ensure availability of personnel for standby and call-outs when required during the weekends and or after normal working hours.

It is very important that the *Contractor* keeps records of his people working including those of his *Sub-Contractors*. The *Service Manager* shall have access to them at any time.

Time Management:

- SOW shall be executed within allocated maintenance duration and as per prioritised work category as defined in the Eskom Work Prioritisation procedure, unique Identifier 240-44948953.
- Personnel will be expected to work overtime and opportunity maintenance.
- Personnel are expected to work overtime which should not exceed 80hrs, in case where more than 80hrs is worked the employer shall only pay for a maximum of 80hrs.

5.3 Health and safety facilities on the Affected Property

Kendal power station has a medical station on site and a standby paramedics service for emergencies. There is a medical centre on site for emergency purposes, contact number 013 647 9391.

5.4 Environmental controls, fauna & flora

Hunting of animal and picking of plant is not allowed on site.

5.5 Cooperating with and obtaining acceptance of Others

The *Contractor* will be exposed to multiple *Contractor*s working in the same plant area, and it is the *Contractor's* duty to co-operate with the other *Contractor*s and/or *Sub-Contractor*s to achieve service delivery. The *Contractor* will interact with the other *Contractor*s or parties to comply with statutory requirements.

5.6 Records of *Contractor*'s Equipment

The *Contractor* to supply all required tools to conduct maintenance.

The list of tools requirements includes the following as a minimum but is not limited to:

- Complete artisan toolbox
- Pneumatic / Electric impact tools
- Bearing pullers and wrenches (Different sizes)
- Rigging tools and equipment
- Supply and use of boiler-making tools if required to address the defects on the system. This may include CO2 or Arch Welding equipment, Gas cutting and brazing etc
- Supply and use of a 380V / 220V generator and lights for the use of tools to address defects in the plant and anytime of the day
- All consumables will be provided by *Contractor*
- The *Contractor* will transport and convey all spares from the Stores to the plant and remove all used / scrap from the plant to Stores or designated area or otherwise requested by the *Employer* on an as and when required basis

5.7 Equipment provided by the *Employer*

- The *Employer* allows the *Contractor* to use Overhead Cranes and Electric Hoists, provided the *Contractor's* employees are authorised as Lifting Machine Operators.
- The *Employer* provides scaffolding, the request shall be made through the *Employer's Representative*.
- Should the *Contractor* require using any of the *Employer's* equipment, including compressed air, electricity, water supply and mobile crane, it must be specified by the *Contractor* during the kick-off meeting. The *Employer* does not guarantee continuity of supply of any of these items.
- The *Employer* shall be entitled to withdraw use of the said equipment, should proper maintenance and cleanliness not be ensured. In the event, the *Contractor* shall be obliged to provide the necessary equipment at his own cost.
- 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's* Site Manager must ensure that any one of his employees or *Sub-Contractor* operating hoist equipment belonging to the *Employer* is authorised by an Accredited Company and retraining is done annually.
- A copy of this accredited and valid training certificate must be given to the *Employer's* Supervisor, who will then arrange access or usage.
- The spares are purchased and supplied by *Employer*.

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

a) **Water**
b) **All scaffolding needs will be provided by Kendal Power Station contract on site.**

c) **Refuse Disposal**
- The *Employer* provides special colour coded bins for refuse disposal. These bins are emptied by the *Employer* free of charge.
- The *Contractor* ensures that all workers under his control strictly adhere to the correct use of refuse bins as stated in the Plant.

d) **Supply of Electricity**
- *Employer* will make available to the *Contractor* 220/230-volt electrical supply free of charge from the closest existing point of supply.
- The *Contractor* is to make provision for the necessary extensions and plug points.
- The *Contractor* provides his own portable electrical distribution boards, and supply cables to and from the boards for all his power supply requirements to execute the works.
- All Electrical boards must be inspected and tested before connecting to a power supply.

- Each board brought onto site must have a Certificate of Compliance issued by an accredited person.
- The *Contractor* will adhere to the Electrical Installation Regulations

e) **Medical Facilities**

- The *Contractor* provides a First Aid service to his employees and *Sub-Contractor*. 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 and life-threatening situations.
- The *Employer* recovers the costs incurred in the use of the above *Employer's* facilities from the *Contractor*.

f) **Toilet Facilities**

- Temporary chemical toilets are provided by the *Contractor* were deemed necessary.
- *Contractor* shall provide everything else necessary for providing the service.

g) Catering Facilities

- The *Contractor* is not allowed to use *Employer's* dining facilities, unless a specific agreement has been made between the *Contractor* and *Employer's* Catering and Accommodation Services (ECAS).
- The *Contractor* may buy take away meals from fast foods outlet on site.

5.8.2 Provided by the *Contractor*

The Contractor should provide facilities they deem necessary in executing the work.

- All temporary building, cabins and containers including change rooms and all related items including but not limited to fire fighting equipment.
- All hand tools and equipment, including emergency retracting air tool, flexible pipe and fittings.
- All lifting equipment and slings, and any other items in order to fulfil the scope of work.
- Communication equipment such as portable two-way radios compatible with Kendal Radio.
- Security of Contractor's yard and equipment.
- *Contractor* must have Transport for personnel coming to site.
- All vehicles provided by the *Contractor* must be road worthy and comply with Kendal standards.
- *Contractor* is responsible for providing PPE to all their employees coming to Kendal Power Station.
- Everything else necessary for providing the service.

5.9 Control of noise, dust, water and waste

Kendal Power station can be very dusty at times. The *Contractor* to use a dusk mask to protect themselves from dust. *Contractor* shall adhere to the Kendal waste management plan which will be shared with the *Contractor* during induction training.

5.10 Tests and inspections

- The *Contractor* shall provide the *Service Manager or Employer's* representatives with a minimum of 48 hours advance notice for inspections and intervention points requiring their attendance.
- The *Contractor* shall conduct performance test after installation in the presence of the *Service Manager or Employer's* representatives according to the QCP, the end user's and functional requirements.
- All work must be inspected and approved by the System Engineer and *Employer's* representative before it may be covered/ boxed up.

6 List of drawings

6.1 Drawings issued by the *Employer*

The drawings will be provided at request, if available, otherwise a sample will be provided. All drawings will remain the sole property of Kendal Power Station.