

PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S SERVICE INFORMATION

Contents

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1 Description of the service

1.1 Executive overview

This contract covers the provision of Control and Instrumentation (C&I) maintenance services for the Units and Outside Plant (OP) areas at Kendal Power Station. The service includes routine, preventative, corrective and breakdown maintenance on process control and instrumentation systems associated with the power generation plant and auxiliary systems. The work will mainly be carried out within operating generating units, boiler and turbine plant areas, coal handling plant, ash handling systems, water treatment facilities and associated balance of plant infrastructure.

The Contractor is required to provide suitably qualified personnel, supervision, technical support, tools and specialised equipment necessary to execute the services safely and efficiently within an operating coal-fired power station environment. The scope includes maintenance, testing, calibration, fault finding, repair and commissioning support on field instrumentation, process control systems, analysers, transmitters, switches, monitoring systems and associated control equipment.

The Contractor shall support planned outages, emergency breakdowns and operational maintenance activities in compliance with Eskom's Safety, Health, Environment and Quality (SHEQ) requirements, applicable legislation and station operational standards. The services are intended to support the reliability, availability and sustainability of Control and Instrumentation assets through effective maintenance and close coordination with Operations, Engineering, Maintenance and other contractors working on site.

1.2 Employer's requirements for the service

The Employer requires the Contractor to provide Control and Instrumentation (C&I) maintenance services for the Units and Outside Plant (OP) areas at Kendal Power Station. The Contractor shall provide all necessary labour, supervision, certified tools, equipment and technical support required to execute the services safely and efficiently, excluding spares supplied by the Employer.

The Contractor shall perform planned, preventative, corrective, proactive, opportunity and breakdown maintenance on Control and Instrumentation systems and associated plant equipment. The services include inspection, testing, calibration, fault finding, repair, replacement and commissioning support required to restore equipment to operational condition.

The Contractor shall provide maintenance support for field instrumentation, process control systems, analysers, transmitters, switches, monitoring systems, mechanical and hydraulic systems associated with instrumentation plant, and associated control equipment within the generating units and outside plant areas.

The Contractor shall provide suitably qualified and competent personnel, including site management, supervisors and maintenance personnel, to support routine maintenance activities, outage execution and emergency breakdown work. A base maintenance crew shall be available on site for normal maintenance activities, with additional resources provided as required for planned outages and major maintenance activities.

The Contractor shall execute the services in accordance with Eskom's Safety, Health, Environment and Quality (SHEQ) requirements, applicable legislation, Eskom maintenance policies and station operating procedures applicable to an operating coal-fired power station environment.

The Contractor shall coordinate activities with the Employer's Operations, Engineering and Maintenance departments, and with other contractors working on site, to support the reliability, availability and sustainability of plant equipment and continuous generation operations.

1.2.1 Control and Instrumentation Scope Overview

The Contractor shall be responsible for maintenance of all field instrumentation at Kendal Power Station according to the prescribed employer's standards; apart from systems that are maintained by their OEMs. Where the OEM contract exists, the Contractor shall be responsible to do 1st line maintenance. The Contractor is expected to have full knowledge of systems mentioned on the below table and proof of such knowledge.

Table 1: Kendal Power Station plant systems for the purpose of the maintenance contract

	Plant Systems
Boiler system	<i>Boiler & auxiliaries</i>
	<i>Boiler Protection system including flame scanners, Hydra steps and Pyrometers.</i>
	<i>Feed water system including BFP's, HP & LP heaters, DST</i>
	<i>Sootblower control system</i>
	<i>Electrostatic Precipitators</i>
	<i>Oil Burner management Including Burner tilt, fuel oil integrators and Aux air dampers</i>
	<i>SO3 Plant</i>
	<i>Milling plant</i>
	<i>Draught group including Schenk vibration</i>
	<i>Fuel oil plant</i>
	<i>HP bypass system</i>
	<i>PA flow</i>
	<i>Tube leak detection</i>
	<i>Boiler Oxygen analysers</i>
Turbine system	<i>Turbine Control and protection system</i>
	<i>Turbine Turbovisory system</i>
	<i>Turbine Auxiliaries</i>
	<i>CEP's, Condensers, Elmo pumps</i>
Condensate system	<i>Cooling towers and MCWP's</i>
Main Cooling water	<i>Seal oil and level probes</i>
Emissions:	<i>Emission Monitoring: Gas and Dust monitoring</i>
Coarse Ash Plant control system including coarse ash conveyor, Apron, Sicon, transverse & SSC.	<i>SSC Agitation pumps</i>
Unitised and Forced cooling Compressors	

H2 Plant including Unitised H2 Dryers	
Gas Turbines	
Unitised and Sub East Equipment rooms	
WTP	
Crossover plant	
Sewage plant	

1.2.2 Control and Instrumentation Detailed Scope

- Maintenance to be performed shall be inspection, calibration, loop checking, stroke checking, function checking, repairing, removing, replacing and testing of field instrumentation of all C&I related plants at Kendal Power Station.
- The Contractor shall be responsible for the maintenance of the total control and field instrument system that is working on 24V. This shall also include any circuits that work on voltages at and less than 220V AC and 220V DC.
- The Employer has to authorise any equipment changes or plant modifications. In all cases even if there is a need to move equipment, change equipment or add equipment.
- The Contractor shall render service with no additional cost, for any tests required by other Contractors representing Maintenance at Kendal Power Station, and Kendal Power Station permanent staff.
- The Contractor shall render a service to the Outage management department (with permission from the Contract Manager) during outages and any other related work at no additional costs.
- The Contractor Site Supervisor shall report directly to the C&I Maintenance Manager/ Contract Manager, for the day to day issues.
- The Contractor must perform function checks and Calibration on the entire field Instruments and the Calibration Sheet must be filled; and both Eskom and the Contractor shall have copies of such for filing.
- The Contractor shall maintain the environmental conditions where the C&I equipment operating in the Sub-stations and Equipment rooms as specified in procedure 240-56355731**Error! Reference source not found.**
- The Employer shall supply all the spares needed by the Contractor to execute the scope at hand. However after a proper fault finding has been performed and demonstrated the need for replacement of the instrument as the last resort.
- The Contractor must assist at no additional costs other than provided in this contract, in terms of commissioning of all new plants and maintenance on new handed over plant after a modification.

- The Contractor must assist with modifications which arise from an equipment change due to the currently used equipment being obsolete at no additional costs.
- The Contractor must perform Stroking of all the Actuators that are Auma, Rotork, Siemens, AEG, Limit Torque and/or any other actuator that is installed at Kendal Power Station.
- All documents generated in the course of executing work on behalf of the Employer in accordance with this contract to be filed and stored appropriately, and to be made available for audit purposes as and when required. Calibration certificates, QCP's and any other documents the Employer might require.
- The Contractor to perform the re-commissioning requirements after GOs, IRs and OMs.
- The Contractor shall ensure that all his employees are authorised in terms of the Fossil Firing Fuel Regulation (FFFR) and Plant Safety Regulations (PSR). At commencement of contract, at least 50% of employees must begin the FFFR & PSR authorisation process immediately. The remaining Unauthorised employees shall be given a period of six months from contract placement to gain authorisation. Failure to adhere to the stipulated time, shall lead to 10% of the monthly contract payment being deducted per month until 100% employees are authorised.
- All C&I documents (either on softcopy or hardcopy) in Eskom's possession, which is required for plant operation and maintenance purposes shall be made available to the Contractor.
- Any tools required for maintenance work shall be supplied by the Contractor as per the minimum standard tool list (list at the last page), but not limited to the tool list. Workshop tools utilized by the Contractor with permission from the Employer are to be maintained and kept safe. If they are lost while in the possession of the Contractor they shall be replaced by the Contractor.
- The Employer shall provide two way radios which the Contractor shall take responsibility of any loss or damages (while in their possession) and shall be returned at the end of the contract.
- All transportation requirements required by the Contractor for his employees shall be provided for by the Contractor.
- The Contractor shall ensure that time and attendance register are signed daily by his employees (Time-in and Time-out for the day).
- Contractor to establish site on Kendal Power Station site

1.2.3 Minimum Qualifications requirements for the Resources

- **Technicians:** should hold a National Diploma Electrical Engineering Control and Instrumentation from University of Technology/Technicon / Technical (N6 with trade test) diploma in Instrumentation, have a minimum of 3 years' experience in a power plant or related field experience. Proof of qualifications, Academic record and CV's shall be attached.

- **Artisans/ Instrument Mechanician:** should hold N4 and Trade test certificates in Instrumentation and a minimum of 2 years' experience in a power plant or related field experience. Proof of qualifications, Academic record and CV's shall be attached.
- **Site Supervisor:** should hold a National Diploma in Electrical Engineering Control and Instrumentation, have a minimum of 3 years Supervisor related experience and must have a power plant or related field experience minimum of 2 years.
- **Safety Officer:** should hold a diploma in Safety qualification, must have a minimum of 2 years safety related experience on any industrial site.

Table for the Resources required:

Resources	Quantity
Site Supervisor	1
Instrument Mechanician	15
Technician	4
Safety Officer	1

1.2.4 Field Instrumentation

a) Routine Work

- All the simulations shall be managed as per the local procedures **Error! Reference source not found..**
- The Contractor shall be responsible for Hot and Cold Commissioning after outages and mill services, and shall make people available for all opportunity maintenance, Unit light up and shutdowns when requested.
- The Contractor shall perform Unit plant fault finding from primary element up to and including the relevant DCS modules.
- Replacing relevant DCS and PLC modules, system fault finding from primary element up to and including relevant module.
- The Contractor shall be responsible for the Stroke checking of all electrical actuators, binary & control, setting of appropriate limits feedback and position feedback (Including cabling from equipment room to value, and equipment room to first point of termination in SWG).
- All pneumatic valves, stroke check and adjusting of pneumatic positioners where needed (including tubing on valves).
- The Contractor shall be responsible for the Soot blower system maintenance of the pressure switches, gauges and transmitters.
- The Contractor shall be responsible for the maintenance of the Tube leak detection system microphones and MUX box computer.
- The Contractor shall be responsible for the maintenance of the Gas analysers and Dust monitors (Clean, repair and calibrate).
- The Contractor shall be responsible for the unit plant binary & analogue signals on the following plants: Blow down sump, SSC, Course Ash, Apron, Sicon, Diverter Chutes, Fuel oil station, Propane gas, Unitised compressors (Kaiser), Force cooling Compressors, CW System and H2 Plant, Gas turbine, Sulphur plant.

The Contractor shall be responsible for the Sequence trip testing of Coarse Ash conveyors.

- The Contractor shall be responsible for the Boiler and Auxiliaries which consists of all binary & analogue signals including electrical & pneumatic actuators and dampers (Windbox dampers and burner tilts).
- The Contractor shall be responsible for the Turbine and Auxiliaries which consists of all binary & analogue signals including electrical & pneumatic actuators.
- The Contractor shall be responsible for the Step & Sub-group control and Sequencing control of all signals from the primary elements to DCS.
- The Contractor shall be responsible for the correcting of faulty alarms from primary element up to DCS modules; as well as clearing all disturbances on the DCS.
- The Contractor shall be responsible for all C&I Units coils of solenoid valves and electrical circuits on the systems.
- The Contractor shall be responsible for investigating the function and reliability of primary elements.
- The Contractor shall be responsible for the Units' plant Coarse Ash sequence testing from primary element up to appropriate PLC, DCS or system defined module.
- The Contractor shall be responsible for all the appropriate controllers or systems used on the field at the Coarse Ash (e.g. green line system on conveyors).
- The Contractor shall be responsible for all the temperature compensating cables and associated elements.
- The Contractor shall be responsible for the simulation of signals with the necessary written authorisation, control and removal of simulations as soon as possible. The authorisation shall be acquired via the OpSuite FLIP System.
- The Contractor shall be responsible to maintain an acceptable access control system in C&I restricted areas where installed.
- The Contractor shall be responsible for all the connectors, junction boxes, LCS and any other similar device used in the field.
- Routine maintenance includes daily plant walks to confirm the plant condition and to identify and address visible faults/ disturbances in equipment room. All defects or potential failures shall be recorded. Performance of plant in operation is monitored by the Contractor.
- The Contractor must complete all preventative maintenance within the time span given. Where Permit to Work is required, the work shall be planned with the AP.
- The Contractor is expected to form part of the departmental planning weekly meeting. Contractor must submit a plan for significant emergency maintenance work. Emergency maintenance lesson learned and standby activities lesson learned to be shared in the morning/ toolbox meetings on a daily basis.
- The Contractor must complete all notifications within the given time span, according to SAP system and Work management prioritization guide (classification of notification priority 01, 02, 03). The Contractor must generate notifications on Flip system when needed or required (defects and corrective maintenance). Where Permit to Work is required, the work shall be planned with the Appointed Person.
- Corrective, planned and preventative maintenance shall be prioritized with the emphasis on the corrective maintenance or according to the priority.
- All C&I equipment must be maintained according to the philosophies and recommendations of the OEM's or Eskom. Changes to the philosophies must be authorized by Eskom.
- The Contractor shall deliver quality maintenance according to the Kendal Standard Quality Control Procedures (QCP's shall be drawn up for all work to be performed by the Contractor).
- The primary elements on the MV and LV switchgear shall be from the last termination point in the switchgear including the cabling to the DCS. This shall also include the terminations in the actuators, situated inside the actuator termination box.

- The calibration and maintenance of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pick-ups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's and gauges, that operates on less than 220V AC and 220V DC.
- The removal and replacement of spares (disposal if requested) of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pick-ups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's, gauges, vibration pick-ups and limits, that operates on less than 220V AC and 220V DC.
- The Contractor shall be responsible for the turbine, exciter and generator thermocouples fault finding, removal, installation, repairs, loop checking and testing.
- The Contractor shall be responsible for the installation of all compensating cabling that would be required on the complete plant.
- The Contractor shall be responsible for all the alarms that are fed through the DCS system and alarms that are fed with a voltage at or less than 220V AC and 220V DC.
- The Contractor shall provide assistance on the bearing vibration system (BFP's, ID's, FD's, PA's, CW's and Turbine)
- The Contractor shall provide assistance on the total control system operating at/or less than 220V AC/DC.
- The Contractor shall provide assistance on the oil burner system maintenance.
- All pneumatic controllers and valves, stroke check and adjustment of controllers where needed (including tubing on controllers up to first point of isolation away from controller).
- Soot blower system controls and limits operating at or less than 220V AC and 220V DC.
- The Contractor shall be responsible for the ESP, SO₃ plant, dust and gas monitors, the control and calibration of appropriate instruments and circuits.
- The Contractor shall be responsible for all solenoid valve coils on units and outside plant at or less than 220V AC and 220V DC, power to the coil and operation of the coil.
- Instrumentation will be removed and replaced by the Contractor when requested by mechanical group when work has to be done to prevent damaged on the instrument.
- All tubing and C&I units pipe work on instruments will be done by the Contractor.
- All tubing and C&I units pipe work on instruments will be done by the Contractor.
- The Contractor shall be responsible for the commissioning, investigation of faults and clarification of problem areas.
- The Contractor shall supply a service free of charge to the mechanical sections (fault rectification, fault finding, and calibration of gauges etc. that concern instrumentation and the effective operation of the station).
- The Contractor shall supply a service to the Boiler, Turbine, Milling and other plant sections where necessary/ needed.

b) Outage Related Work

- The Contractor shall provide staff to work on Outages, Interims Repairs or GOs. The Contractor shall release staff from Maintenance duties to work on the Outage and plan as far as possible around these activities. The releasing of staff from maintenance duties shall not compromise maintenance activities. The Contractor is to ensure that duties of the staff released to Outages is covered by the staff remaining for Maintenance services. During Outages 10 staff required for Units, 6 staff required for OP and 4 staff required for WTP.
- The Contractor shall provide staff to work on different types of Outages when notified by Eskom and shall prepare the suitable plan for the duration of the Outage.

The types are:

- **OP-Opportunity Maintenance outage:** varies between 10-21 days and it is coordinated by Outages and executed by Maintenance staff.
- **IR-Interim Repairs outage:** duration is 35 days and it is coordinated by Outages and executed by Outages staff.
- **GO-General Overhaul outage:** duration is 160 days, and it is coordinated Outages and executed by Outages staff.
- QCP's shall be drawn up by the Contractor for the agreed activities between the Contractor and Eskom including Hold and Inspection points. Eskom shall accept and approve the QCP's for Units section. For the Outside plant Eskom personnel shall develop the QCPs for the Contractor to execute work with.
- The Contractor and Eskom personnel shall always represent Eskom in all the Outage meetings. The Contractor to give feedback of activities or issues raised during the Outage meeting daily. Eskom personnel to lead in all Outage activities.
- The Contractor in conjunction with the Employer shall draw up an Outage plan as part of the scope. The main aim of the Outage is to restore the plant to a higher level of integrity. The Contractor and Eskom personnel shall perform all the work according to the scope of work for the different plant areas within the duration of the Outage.
- The aim of the Outage scope of work is to ensure that the plant is available and reliable when the Unit is returned to service, with the least impact on production and business performance.
- The Contractor along with Eskom personnel shall provide a populated Plant pre-shutdown Checklist to Outages per plant area to be worked on during the outage.
- The Contractor along with Eskom personnel shall inspect the plant systems that were worked on during the Outage before the Unit is returned to service and ensure that the plant is in an operable state and will not cause unnecessary delays.
- If an Outage related defect is known, spares must be identified by the Contractor and made known to the Employer, so the Employer can procure or reserve immediately, so that the defect can be rectified on opportunity outage.
- The Contractor and Eskom personnel shall be available for Hot and Cold Commissioning; and assist with tests on the Boiler & Turbine protection and safety systems as well as on the Outside plant and Water Treatment plant tests.

c) Cabling

- The Contractor shall be responsible for cabling by pulling in and out any type, Length (Distance) and any size (Thickness) of new cabling which is C&I related and termination from a Junction box, Cubicle to the instrument or Local control panel. The Employer will supply the cable and the Contractor shall execute the activity at no extra cost.
- The Contractor is responsible for reporting any damaged to all C&I cabling with a voltage at or less than 220V AC and 220V DC to Eskom personnel and also be able to do replacement and termination when required. This includes all the terminations up to and including the primary elements.
- The Contractor is responsible all C&I tubing removal and replacement where needed or requested by Eskom.

1.2.5 Spares Management

- The Employer will supply all the Spares needed by the Contractor to execute the scope at hand.
- The Contractor in conjunction with the Employer shall identify critical spares and submit a list detailing them. When identifying the spares, the Contractor shall keep in mind the need to minimise production risk due to spares availability, and also the need to avoid wasteful expenditure of public funds in terms of PFMA by holding too much spares than is necessary. The risks involved shall be listed with appropriate solutions. This action should be a joint effort between Contractor and the Employer.
- The Contractor is to be aware that the spares are the property of the Employer.
- If Spares are not available at the Eskom stores, The Contractor with approval of Eskom, may, make temporary measures at the plant to minimise either the risk of injury to personnel or plant damage, or load loss or unit trip.

1.2.6 Workshops and Test Equipment

- The Contractor with the permission of Eskom supervisor may utilise the Workshop. The Contractor will then be responsible for the costs of the any damage to workshop and test equipment.
- The Contractor to provide their own fluke multimeter (177) with valid SANAS calibration certificate and standard tool box(tool list). The multimeter must be calibrated yearly and calibration certificate must be filed.
- The Portable electrical equipment register shall be kept and updated by the Contractor. All tests done by the Contractor must be done according to Eskom regulations and standards, both the Contractor and Eskom must have copies of such as proof of the tests for filing.
- Test equipment and computers will be supplied by Eskom. The equipment is seen as the property of Eskom. The Contractor will maintain and keep it in good working state, any losses or damages of such equipment shall be on the Contractor's costs. Any theft of such equipment should be reported to the Eskom personnel as well as to the Eskom security service within 24hrs of realisation for formal investigations to be done, all negligence declared cases shall be on the Contractor's account.
- The Contractor's Fluke Multimeter should be checked and tested frequently by the Eskom, according to Eskom standards and sent for calibration at a national accredited source (SANAS), the Contractor to give a list of all test equipment which will expire every 3 months before their expiry date for calibrations, failure to do so, a monetary penalty shall be charged to the Contractor which will be negotiated as that might have a production loss implication.
- The Contractor is responsible for the repairs on test equipment whereby the damages are done by his employees.

1.2.7 Hours of Work

a) Normal Working Hours

- The Employer requires onsite maintenance during normal working hours, Standby and call-out service for any abnormal events and problems during non-normal working hours. This should not have a negative impact on any of the performance indications of the station. The normal working hours is from 07H15 to 16H30, Mondays to Thursdays excluding public holidays. Lunch is between 12H00 and 12H30. On Fridays the working hours is from 7H15 to 12H15. The Time sheets are to be

signed on arrival and departure in Departmental manager's office. Non adherence to these working times shall result in strict penalties.

- All Leaves taken by Contractor's employees will be on the Contractor's account. The Contractor must have 100% coverage of available resources at all times. Eskom will not pay for any absenteeism.
- Shift allowance shall also be catered for by the Contractor for the Units resources.

b) Standby

- The Contractor's Standby crew is to be available at all times (24 hrs 7days a week). The Standby crew is to be competent on the plant and authorized to act as Responsible persons on permits and be able to carry out simulations if authorised.
- The Contractor will be expected to change from normal working time to shift work, as and when the Employer requires for the Contractor to do so. The payment conditions for this must be negotiated.
- The Standby crew's reaction time in emergencies should be as quick as possible (1 hour). The Contractor will provide the Employer with a standby roster with the contact details of the person on standby.
- Call-outs will be according to SAP prioritisation, all call outs should be accompanied by a notification number with a priority 1 on it, any notification which is not a priority 1 should be planned and be done under planned work unless such notification cannot be done during the day and arrangements with Eskom supervisor were done to execute it out of normal operating hours.
- The Contractor's proposed standby roster should be submitted to Eskom at least a month prior to the standby month. The Employer has a right to influence and make changes on the Standby Roster; any changes done by Contractor, on the list should be communicated to Eskom, and reasons given. The final standby roster will be compiled by the Eskom supervisors.
- The normal Contractor's maintenance standby crew should consist of 2 persons and shall be available on call-out always free from drugs and alcohol and shall report to control room within 1 hour of a call. Their full contact details and phone numbers should be given on the standby list. If there is a deviation on this matter it should be agreed by Eskom representative.
- Contractor Supervisor will work overtime only if given written authorisation by the Eskom Contract service manager is given, overtime worked without written authorisation shall not be paid.

c) Outage Hours

- **Outage management department shall be responsible for remunerating for normal working and overtime hours worked during an Outage. Shift allowance shall also be catered for.**
- **The normal outage working hours is from 07H00 to 19H00, Mondays to Sundays including public holidays. Lunch is between 12H00 and 12H30 and rest period between 16H30 and 17H00.**
- **During a Unit recommissioning the Contractor staff shall be working shifts Mondays to Sundays including public holidays:**
- **Day shift hours from 07H00 to 19H00 [Lunch is between 12H00 and 12H30 and rest period between 16H30 and 17H00].**
- **Night shift hours 19H00 to 07H00. [Rest period between 00H00 and 00H30].**

1.3 Interpretation and terminology

Table 2: The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
C&I	Control and Instrumentation
OP	Outside Plant
SHEQ	Safety, Health, Environment and Quality
DCS	Distributed Control System
IAP	Instrument Air Plant
OEM	Original Equipment Manufacturer
OHSA	Occupational Health and Safety Act
PM	Preventative Maintenance
CM	Corrective Maintenance
RTD	Resistance Temperature Detector

Table 3: The following terms apply in this Service Information:

Term	Explanation
Base Crew	The Contractor's maintenance personnel permanently allocated on site to execute routine and breakdown maintenance activities.
Outage Maintenance	Maintenance activities executed during planned unit shutdowns and outages.
Opportunity Maintenance	Maintenance activities performed when plant or equipment becomes available outside planned outage periods.
Breakdown Maintenance	Unplanned maintenance carried out to restore failed equipment to operational condition.
Preventative Maintenance	Planned maintenance activities intended to reduce the probability of equipment failure.
Proactive Maintenance	Maintenance activities aimed at improving equipment reliability and preventing recurring failures.
Generating Unit	A boiler, turbine and generator set and its associated auxiliary systems used for electricity generation.
Balance of Plant	Auxiliary plant systems supporting power generation operations, including coal handling, ash handling, water treatment and associated services.

2 Management strategy and start up.

2.1 The Contractor's plan for the service

The Contractor submits a plan for the service in accordance with clause 21.2 of the Conditions of Contract. The plan demonstrates how the Contractor intends to execute the Control and Instrumentation (C&I) maintenance services safely and effectively within an operating coal-fired power station environment. The Contractor's plan includes:

- Organisation structure, supervision arrangements and key personnel;
- Resource planning for routine maintenance, breakdowns, planned outages and emergency work;

2.2 Management meetings

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

The Contractor must attend the following Standing meetings as and when required which will only address plant related matters and are weekly scheduled, they may be changed due to prevailing operational or plant conditions, but the attendance is not limited to these.

Table : Meetings program

Title and purpose	Approximate time & interval	Location	Attendance by:
Regular meetings			
Section meetings Toolbox talk	Daily	MS Teams/ Supervisor Office	Employer, Employer Supervisor, Contractor Supervisors and others as determined by the Employer.
Planning meetings (including integration meetings with Others)	Weekly	MS Teams	Employer, Contractor Planner, Contractor Supervisor.
Contract Key Performance Indicators	Monthly	MS Teams	Employer, Employer Technical Team, Contractor, Supervisor, Contractor Manager and Others as determined by the Employer.
Risk register and compensation events	As and when required	MS Teams	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.
Overall Recovery Contract Progress and feedback	Monthly	MS Teams	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.
Standing Meetings			
Production meeting	Monday, Wednesday, and Friday.	TBA	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.
Plant focus meeting	Daily.	TBA	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.
Plant technical risk meeting	Thursdays	TBA	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.

Safety talk or hour	Tuesdays.	TBA	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.
Departmental meeting	Daily.	TBA	Employer, Contractor, Supervisor, Contract Manager and Others as determined by the Employer.

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 provides and maintains suitably qualified, competent and experienced management, supervisory and technical personnel necessary to execute the services safely and effectively throughout the service period. The Contractor Site Supervisor shall report directly to the C&I Maintenance Manager / Service Manager, for the day-to-day issues:

The Contractor's site team includes:

- 1X Supervisors;
- 4X Technician;
- 15X Control and Instrumentation mechanician
- 1X Safety Officer;

The Contractor ensures that all personnel are medically fit, trained, authorised and competent to work within an operating coal-fired power station environment and comply with Eskom's Safety, Health, Environment and Quality (SHEQ) requirements and applicable legislation.

The Contractor submits an organisation structure indicating key personnel, reporting lines and communication arrangements within two weeks after the Contract Date. Any replacement of key personnel is subject to acceptance by the Service Manager.

The Contractor ensures that sufficient supervision and resources are available at all times to support routine maintenance, breakdown maintenance, planned outages and emergency work.

Attendance and Personnel Management

- The Contractor shall ensure that time and attendance registers are signed daily by his employees (Time-in and Time-out for the day)

Participation in Planning and Coordination

The Contractor is expected to:

- Participate in departmental planning meetings;
- Submit plans for significant emergency maintenance work;
- Share lessons learnt from emergency maintenance and standby activities during toolbox meetings.

Outage Staffing Requirements

The Contractor shall provide staff to work on Outages, Interims Repairs or GOs. The Contractor shall release staff from Maintenance duties to work on the Outage and plan as far as possible around these activities. The releasing of staff from maintenance duties shall not compromise maintenance activities. The Contractor is to ensure that duties of the staff released to Outages is covered by the staff remaining for Maintenance services.

Outage Coordination and Representation:

- The Contractor and Eskom personnel must jointly attend outage meetings.
- The Contractor must provide daily feedback on activities and issues raised during outage meetings.

2.4 Documentation control

All issued shop paper and PMs shall be returned filled and signed by executed personnel and handed back to Employer Supervisor daily when work is completed.

The PTW documentation should be kept safe at all times by the Contractor Responsible Person.

2.5 Invoicing and payment

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

The Contractor shall address the tax invoice to

Eskom Holdings 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 emailed to invoiceseskomlocal@eskom.co.za

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.

2.6 Contract change management

- The Service Manager may instruct changes to the Scope in accordance with the NEC3 Term Service Contract. All changes relating to service requirements, outage schedules, maintenance priorities, plant availability, access arrangements, standby requirements, or resource allocations shall be communicated formally through the Service Manager.

- The Contractor shall not implement any change affecting the Prices, programme, staffing, or service delivery without formal instruction from the Service Manager.
- The Contractor shall notify the Service Manager of any matter that may affect the service in accordance with the contract early warning requirements and shall provide details of any cost, resource, programme, or operational impacts associated with the change.
- All compensation events shall be managed in accordance with NEC3 TSC procedures and timelines. No verbal instruction or informal communication shall constitute approval for a change unless confirmed formally by the Service Manager.
- The Contractor shall maintain records of all instructed changes, quotations, compensation events, and revised programmes for the duration of the contract.
- Due to the operational nature of the Power Station environment, the Contractor shall maintain flexibility to accommodate changing plant conditions, outage requirements, and emergency maintenance priorities.

2.7 Insurance provided by the *Employer*

As stated in the Contract Data (Data Provided by the Employer) of this NEC3 TSC3 document.

2.8 Training workshops and technology transfer

The Contractor shall implement and maintain an ongoing training, development, and knowledge transfer programme for all personnel deployed under this contract to ensure the safe, competent, and compliant execution of the Works.

The training and development programme shall include, but not be limited to:

- Training and authorisation of personnel in accordance with applicable Eskom requirements, including:
 - Fossil Fuel Firing Regulations (FFFR); and
 - Plant Safety Regulations (PSR), where applicable.
- Progressive authorisation of personnel within the required contract timeframes.
- Participation in:
 - Eskom-led meetings;
 - outage planning sessions;
 - coordination meetings; and
 - maintenance planning activities;
 - toolbox talks;
 - on-the-job training;
 - safety briefings;
 - operational awareness sessions.
- Communication and sharing of lessons learnt from:
 - maintenance activities;
 - emergency maintenance work;
 - standby duties;
 - outage execution activities.

Technology transfer shall include the structured sharing of:

- technical knowledge;
- maintenance practices;
- operational experience;
- plant-related information

between Contractor supervisory personnel and Employer representatives during the execution of the Works, particularly during outages and emergency maintenance activities.

The Contractor shall ensure that supervisory personnel provide continuous guidance and mentoring to site teams to promote:

- skills development.
- operational competence;
- safe working practices.

The Contractor shall maintain:

- training records.
- attendance registers;
- personnel authorisation records,

and shall make such records available to the Service Manager upon request.

2.9 Management of work done by Task Order

A Task is work within the service which the Service Manager may instruct the Contractor to carry out within a stated period of time.

A signed Task Order is the Service Manager's instruction to carry out a Task.

Task Completion is when the Contractor has done all the work in the Task and corrected Defects which would have prevented the Employer or Others from using the Affected Property and Others from doing their work.

Task Completion Date is the date for completion stated in the Task Order unless later changed in accordance with this contract.

A Task Order includes:

- A detailed description of the work in the Task
- A priced list of items of work in the Task in which items taken from the Price List are identified.
- The starting and completion dates for the Task
- Conditions of the service agreement is in accordance with the Task Order issued

The Service Manager consults the Contractor about the contents of a Task Order before he/she issues it.

The Prices for items in the Task price list which are not taken from the Price List are assessed in the same way as compensation events.

No Task Order is issued after the end of the service period.

Work will not commence on site without the Contractor receiving a signed detailed task order that has been agreed upon by the Service Manager and the Contractor.

It is the Contractors responsibility to provide the Service Manager a detailed Task Order programme for acceptance within the period stated in the Contract Data.

Only when the Task Order programme is accepted and agreed upon by the Service Manager and the Contractor will any work commence on site.

When any emergencies do arise, it is required from the Contractor to adhere to the following terms:

- The Contractor will be informed of emergencies when the Service Manager first becomes aware of it.
- Response time within 2 hours for any communication when the Contractor acknowledges the emergency.

- Provide a programme within 8 hours after Task Order provided to the Contractor
- Mobilise within 24 to 48 hours after Task Order have been accepted by both parties.

Planning of Work.

A daily activity planning meeting will be held with an Eskom (Kendal Power Station) representative to discuss the following:

- Progress report on planned maintenance activities;
- Problems concerning maintenance and repairs;
- Special requirements, tractor trailer and mobile crane;
- Scaffolding requirements;
- Quality inspections / take over inspection after maintenance.

Minutes of the daily activity planning meeting shall be kept by Eskom (Kendal Power Station).

A weekly planning meeting will be held with an Eskom (Kendal Power Station) representative to discuss the following:

- Spares required;
- Quality of work;
- Evaluation of all short-term plans;
- Review all milling plant related load losses;
- Review all milling plant related defects and problems;
- Update and plan the mill service program to ensure that short- and long-term maintenance strategies and spares re requirements are met;
- Plant availability and reliability

Minutes of the weekly planning meeting shall be kept by Eskom (Kendal Power Station).

3 Health and safety, the environment and quality assurance

- The Contractor shall ensure that all technicians/ Mechanician or artisans and have the following SHEQ training with proof prior to commencement of the contract; if training could not be done prior then the Contractor shall be given a period of six months from the contract commencement to train its employees; Failure to adhere shall lead to the Contractor to be removed from Kendal premises with immediate effect. The Contractor shall also be liable to train their employees for any other SHEQ/ Quality/ Environment training which might arise from audit findings, regulation changes, legislation amendments; new Eskom requirement which was not there before etc.

NOTE: SHEQ training Matrix: The below is a list of training to be done within the above stipulated time frames.

Training course	Senior Technician	Technicians
HIRA	X	X
Job Observations	X	X
Re-Induction	X	X
Environmental Systems	X	X
Oil Management	X	X

Waste Management	X	X
Confined Space	X	X
PPE	X	X
Working at Heights	X	X
SHE Systems orientation	X	X
Noise awareness	X	X
Asbestos Awareness	X	X
Fire Extinguisher Handling	X	X
Emergency preparedness/ Planning for Evacuation	X	X

- Site facilities allocated to the Contractor. The Contractor is responsible to keep it clean and up to NOSA & Eskom standards. All changes to the workspace shall become the property of Eskom, and shall remain so until on termination of the Contractor's service.

3.1 Health and safety risk management

The Contractor shall comply with the health and safety requirements as follow:

The Contractor is responsible for compiling and submitting the required Safety File to the Risk and Assurance Department for approval before work can commence.

All personnel employed by the Contractor shall be subject to Eskom Life Saving Rules and Eskom Safety Regulations and Requirements The latest version of Occupational Health and Safety Act No. 85 of 1993, other applicable legislation, Eskom Health and Safety policy, and other applicable procedures, specifications and guidelines including the provided project SHE specification. ISO 45001 Standard.

3.2 Environmental constraints and management

The *Contractor* shall comply with but not limited to the following Environmental requirements:

- Eskom's (SHEQ) Policy;
- Latest version of all legal and applicable environmental requirements, South African Constitution, National Environmental Management Frameworks, Relevant Environmental Bi-Laws, Kendal Environmental Operational Licences and Permits, ISO14001:2015 Standards and all the relevant Kendal Work Instructions. The contractor must acknowledge the role that environmental responsibility holds in the decisions and operations that it carries out, as any operations have an impact on the environment;
- Waste shall be handled according to Kendal Waste and Recycling Work Instruction. The Contractor must conform to the "polluter pays principle", NEMA's section 28 "duty of care" and other NEMA principles and regulations;
- The contractor shall identify and maintain Environmental Objectives and Targets according to their scope of work;
- The contractor document clear Environmental Roles and Responsibility;
- The contractor shall handle environmental incident according to Kendal Incident Management Procedure;
- The Contractor will be contractually required to undertake their activities in an environmentally responsible manner;
- The SHE Officer shall be appointed as an Environmental Representative of the contractor;

- The contract shall before the commencement of work on site prepare the environmental (EMS) file and the Eskom Environmental Representatives shall time to time inspect the contractor's work area, campsite and the environmental file. This file shall follow the ISO 14001: 2015 Revision Environmental Management System;
- Environmental file shall be made available to the environmental officer or auditors on request;
- The contractor shall conduct monthly environmental inspection on their campsite according to the Kendal Environmental Site Inspection Checklist;
- The contractor shall ensure that environmental emergency drills are conducted every year;
- Contractor shall maintain quality document control and ensure that the latest revision documents are used all the time;
- The contractor shall ensure that environmental trainings are part of their training matrix;
- The contractor shall ensure that environmental topics, issues and aspects are communicated during the toolbox talks, monthly topic, SHEQ meetings and contractor's inductions and proof of communications shall be filled in the Environmental file and made available to the environmental officer or auditors on request;
- The Contractor shall ensure a clean and proper housekeeping at all times;
- The hazardous substances shall be stored on a bunded area that meets the SANB quality standards;
- The Contractor shall take part in the EMS Audits.

3.3 Quality assurance requirements

General

- a) The Contractor complies with the Employer's quality and technical requirements including those listed in the Employer's specification document QM58 (Quality Management Specification 240- 105658000.
- b) The Contractor submits a QMS as a returnable schedule and uses it for all phases of the Project. The QMS complies with the requirements of ISO 9001 standard. The Contractor provides evidence of a fully implemented QMS as and when requested by the Employer. The Employer may at his sole discretion carry out an audit on the Contractor, the Contractor's suppliers and Subcontractors.

Quality Management documents requirements

The Contractor submits the following document after contract award to the Employer for review and acceptance and prior to the commencement of work

The Contractor will supply the Employer with a QCP which will detail the Contractor's organisation, quality assurance and quality control procedures specific to this project. The QCP must be aligned to, and reference ISO 10005:2005 QMS, guidelines for quality plans and in compliance with the guideline in QM 58(Quality Management Specification 240- 105658000). The QCP will make reference to the Contractor's QMS Procedures to be used in this Contract:

- a) The Contractor's QMS compliance with the requirements of ISO 9001
- b) Contractor's quality manual
- c) Contractor's quality procedures
- d) Contractor's quality forms and work instructions
- e) Contractor's quality system documents referenced in this Works Information

The Contractor supplies the Employer with a QCP or ITP for review and acceptance.

The Contractor provides CVs of the quality management employees who will be responsible for quality on site.

Quality Management employee's responsibilities include but are not limited to the following:

- a) Administration of QA/QC functions
- b) Verification of approval status of their or Subcontractor's QCP and procedures
- c) On-and -offsite inspections

- d) Co-ordination, inspection and verification of the Employer's intervention points
- e) Review of Contractor testing and inspection documents (procedures, test results)
- f) Reporting on quality performance

The Contractor submits as a minimum the following documents, as required by the Employer, which requirement does not constitute a compensation event, during the execution of the Works:-

- a) Updated QCP register
- b) Inspection notifications accompanied by their inspection report
- c) Non-conformance and Defects registers and reports
- d) Updated Site and off site inspection schedules.
- e) Inspection and or FAT dates.
- f) Inspections completed/outstanding.
- g) Inspection, audits and test reports
- h) Monthly contract quality progress report

Data books for the completed Works, before commissioning can commence (refer to the data book specification)

Quality Responsibility

- a) The Contractor is accountable for the quality of the output and liable for any failures.
- b) The Contractor is responsible for defining the level of intervention of QA/QC or inspections. These are in line with the Employers requirements.
- c) The interventions points include all witness, hold, verification and review points required by the Employer. The Contractor's failure to allow the intervention points will constitute a non-conformance.

Inspections

- a) The Contractor is responsible for the inspection of all the Works that is performed and the Employer only verifies that the Works is conducted as per the Contract.
- b) The Contractor conducts all inspections in accordance with the accepted QCP / ITP.
- c) The Contractor drafts a QCP or ITP which shows each activity from the Works Information and submits to the Employer for acceptance.
- d) The Contractor provides suitably qualified personnel to conduct on-and-offsite inspections
- e) The Contractor ensures that all Works are inspected and approved before the Employer is invited for verification.

Non Conformances and Defects

Where NCR's and Defect notifications are issued, the Contractor acknowledges receipt as per reply period and proposes corrective and preventive actions to the Employer as per the contract response period. The corrective and preventive actions will include the implementation and completion dates. Progress on all NCR's and Defect notifications issued to the Contractor must be reported to the Employer on weekly basis.

- a) The Contractor's quality manager keeps a register of all NCR's and Defect notifications issued
- b) Deviations from the Contract are treated as a non-conformance.
- c) Records of NCRs and Defect notifications are kept and form part of the data book records.

During the contract execution phase, the Contractor will be monitored by the Employer for performance on quality related aspects. The monitoring will be in the form of audits and assessments.

Quality Reporting

The Contractor submits a monthly quality report, on the last working day of the month. The report includes but not limited to the following:

- a) A register of NCRs and defects
- b) Updated QCP / ITP register
- c) QA monthly report summary

- d) Planned and completed local and foreign inspection dates
- e) Completed and outstanding Inspections f) Audit findings report

4 Procurement

There is a cross reference from the core clause 11.2(6) definition of Disallowed Cost to the Service Information regarding procurement procedures. This part of the Service Information MUST include any such procedures to be able to administer Disallowed Cost.

4.1 People

4.1.1 Minimum requirements of people employed

Specify any constraints relating to people employed to Provide the Service; for example permits for foreigners, training (other than H & S), use of labour from designated areas and industrial relations.

4.1.2 BBBEE and preferencing scheme

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

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

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

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 Compliance Schedule stated below

[Insert the agreed ASGI-SA Compliance Schedule here]

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. [Elaborate on access to and format of records and frequency of submission etc.]

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

TSC3 does not make use of nominated subcontracting, but the *Employer* may list which subcontractors or suppliers the *Contractor* is required to enter into subcontracts with. This is usually only required where specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Specify any constraints on how the *Contractor* is to prepare subcontract documentation, whether use of the NEC system is compulsory or not (compulsory is recommended) and how subcontract tenders are to be issued, received, assessed (using a joint report?) and awarded.

4.2.3 Limitations on subcontracting

The *Employer* may require that the *Contractor* must subcontract certain specialised work, or that the *Contractor* shall not subcontract more than a specified proportion of the whole of the contract.

4.2.4 Attendance on subcontractors

State requirements for attendance on Subcontractors, if any

4.3 Plant and Materials

4.3.1 Specifications

The *Contractor* shall ensure the correct specification of any equipment is used for maintenance services provided.

4.3.2 Correction of defects

Every plant equipment that is replaced shall be according to the Preventative Maintenance procedure made available with all the shop paper.

The *Contractor* shall correct all defects from execution, any negligence to quality execution will be dealt with after proper investigation then re-work and any purchase of same equipment shall be of *Contractor's* responsibility.

a) Defect Repairs:

- In the event of a notified Defect, repairs must be undertaken to restore the affected Plant or Material to its original condition and functionality as per the *Employer's* quality requirements.
- If the repair is not feasible or fails to meet the required quality standards, the defective item must be replaced with new Plant or Material of equivalent or superior quality.

b) Quality Assurance and Testing:

- The *Contractor* must implement and maintain a quality assurance system to verify that all Plant and Materials comply with the specified standards.
- The *Employer* reserves the right to inspect and test any Plant or Material at any stage of the Works to ensure compliance.

c) Rejection of Non-Compliant Materials:

- The *Employer* has the authority to reject any Plant or Material that fails to meet the required quality standards.
- Rejected items must be removed from the Site promptly and replaced at the *Contractor's* expense without impacting the project schedule.

d) Record Keeping:

- The *Contractor* must maintain comprehensive records of all quality assurance and control activities, including certificates of compliance, inspection reports, and test results.
- These records must be made available to the *Employer* upon request

4.3.3 Contractor's procurement of Plant and Materials

Not applicable

4.3.4 Tests and inspections before delivery

Not applicable

Core Clause 41.1 makes reference to the Service Information stating which Plant and Materials are to be inspected and tested before delivery. Specify any requirements particularly if such tests and inspections are to be carried out by agents of the *Employer* overseas.

4.3.5 Plant & Materials provided “free issue” by the *Employer*

Contractor shall communicate with Employer's Supervisor and planner and ensure that all required spares are drawn and made available on time for execution. It is the Contractor's responsibility to list all required spares on time.

The spares from employer stores shall be made available for Contractor to use on any plant equipment requiring those spares. Employer shall issue a separate task order if the equipment is not available at stores. Contractor shall ensure that communication for any required spares is done on time to avoid any standing time for plant to be made available for operation.

Spares:

The procurement and the holding of strategic spares shall be the responsibility of Eskom (Kendal Power Station) for the duration of the contract. All spares procured by Eskom (Kendal Power Station) shall be quality controlled by Eskom (Kendal Power Station) and the Contractor before such spares are used.

The Contractor shall check and provide the necessary input for the compilation of scope of work that will be done by a specialist contractor.

All spares to be ordered as scheduled, the Contractor shall attend a joint planning session on a weekly basis with Eskom (Kendal Power Station).

4.3.6 Cataloguing requirements by the *Contractor*

Not applicable

5 Working on the Affected Property

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

The following requirements apply to the Contractor's personnel, subcontractors, and visitors for entry, access, and operations on the Site:

a) Site Access Permits and Entry Requirements

- All personnel must obtain **Site Access Permits** issued by the Employer before entry.
- Valid identification documents (e.g., South African ID or passport) must be presented for security clearance.
- Foreign workers must have valid work permits, and their details must be submitted for prior approval.
- Access permits are non-transferable and must be displayed at all times.
- The Contractor is subjected to alcohol testing on a daily basis.
- The Contractor obtains a "Gate Removal Permit" from the Service Manager before materials and equipment can be removed from site. The "Gate Removal permit" gives itemised list of materials and equipment to be removed from site.
- The Contractor ensures that a tool list is available on the day of arrival and that all tools are captured on the tool list. The tool list will be handed over to the Reception Security official that will stamp the tool list. The tool list will be kept safe and will be used when tools need to be removed from site. This message should be handed over to any of the Contractor's Subcontractors.

b) Security Screening

- All individuals will undergo a background check as part of the permit approval process.
- The Employer reserves the right to deny entry to any person based on security concerns.

c) Vehicle Access

- Only vehicles authorized by the Employer will be permitted on Site.
- Vehicle permits must be obtained in advance, and all vehicles will be subject to security inspection upon entry and exit.

d) Personal and Equipment Inspections

- Security personnel may conduct random searches of individuals, equipment, and vehicles entering or leaving the Site.
- Any prohibited items found will be confiscated, and disciplinary action may be taken.

e) Compliance with Site Regulations

- All personnel must adhere to the Employer's Site Regulations, including but not limited to:
- Health, Safety, and Environmental (HSE) standards.
- Emergency response protocols.
- Restricted areas and access zones.
- Behavioural and ethical guidelines.

f) Induction and Training

- All personnel must complete the Employer's Site Induction Program before commencing work.
- Refresher training may be required periodically or as determined by the Employer.

g) Costs

- All costs associated with obtaining permits, access clearances, or delays caused by non-compliance with entry requirements shall be borne by the Contractor.

h) Breach of Security Protocols

- Any breach of security protocols will result in immediate removal of the offending party from the Site.
- The Contractor may be held liable for any resulting damages, delays, or penalties

5.2 People restrictions, hours of work, conduct and records

The following restrictions and requirements apply to the Contractor's personnel, including subcontractors, while on the Site:

Hours of Work

- **Standard Working Hours:** The Contractor's personnel may work on Site from 07:15 to 16:30, Monday to Friday, excluding public holidays, unless otherwise agreed upon with the Service Manager.
- **Overtime and Extended Hours:** Any work outside standard hours, including weekends or public holidays, must be approved in advance by the Service Manager.
- **Restricted Operations:** Certain operations may be prohibited during specific hours due to environmental, community, or operational constraints.

5.3 Health and safety facilities on the Affected Property

The following health and safety facilities and measures will be in place on the Site to ensure compliance with the Occupational Health and Safety Act (OHSA) and to address potential emergencies, disease outbreaks, and other health risks:

- **First Aid Facilities**

Employer-Provided Facilities: First Aid stations equipped with basic medical supplies will be available at the following locations on Site:

- Main Site Office
- Construction Area Safety Cabin

Trained Personnel: The Employer will ensure that trained first aiders are available during standard working hours.

- **Emergency Medical Services**

Emergency Contact Numbers: A list of emergency contact numbers (ambulance, fire department, nearest hospital, etc.) will be prominently displayed at all work areas and First Aid stations.

On-Site Ambulance: Where applicable, an on-site ambulance will be available to handle critical medical emergencies.

- **Disease Prevention and Epidemics**

Hygiene Facilities: The Employer will provide handwashing stations, sanitizers, and hygiene posters at key locations.

Vaccinations and Health Screening: Where required by local regulations or during epidemic outbreaks, personnel must provide proof of vaccinations or undergo health screenings.

Isolation Facilities: A designated area will be set aside for isolating individuals showing symptoms of contagious illnesses until medical assistance arrives.

- **Emergency Procedures**

Evacuation Plan: An emergency evacuation plan will be displayed at prominent locations on the Site. Regular drills will be conducted to ensure readiness.

Fire Safety: Fire extinguishers and fire alarms will be installed at all major work areas. The Contractor must ensure personnel are trained in fire safety protocols.

Incident Reporting: All incidents, including near misses, must be reported immediately to the Supervisor and recorded in the Site incident log.

5.4 Environmental controls, fauna & flora

The Contractor is required to comply with the following environmental controls, measures for protecting fauna and flora, and procedures for managing objects of historical or cultural significance on Site:

a) Environmental Controls

- **Site Preservation:** The Contractor must minimize environmental damage to the Site, including avoiding unnecessary clearing or grading of land.
- **Pollution Prevention:** Measures must be in place to prevent air, soil, and water pollution.

b) Fauna & Flora

- **Protection of Wildlife:** The Contractor must avoid harming local wildlife. Any encounters with protected species must be reported to the Employer and dealt with under the guidance of environmental authorities.
- **Vegetation Management:**
 - Avoid clearing vegetation outside designated work areas.
 - For any unavoidable vegetation removal, the Contractor must consult the Employer or environmental officer.
 - Replanting or restoration may be required in disturbed areas.

a) Dealing with Objects of Historical Interest

- **Identification and Reporting:** If any objects of historical, archaeological, or cultural significance are discovered during the works, the Contractor must immediately cease work in the affected area and notify the Service Manager.
- **Preservation:** The Contractor must take steps to protect the object or area from damage or disturbance until guidance is provided by relevant authorities or the Employer.
- **Consultation:** Work must not resume in the affected area until approval is given by the Service Manager or authorities after proper assessments have been conducted.

b) Compliance and Monitoring

- The Contractor must comply with all applicable environmental regulations and standards.
- Regular inspections will be conducted by the Service Manager or environmental officers to ensure compliance. Non-compliance may result in penalties or work stoppages.

5.5 Cooperating with and obtaining acceptance of Others

The Contractor must cooperate fully with any Others as defined in clause 11.2(9), including but not limited to:

- Other contractors or service providers working on the Site.
- Representatives of the Employer and designated agents.
- Other stakeholders involved in or affected by the Works.

5.6 Records of Contractor's Equipment

- Where applicable, The *Contractor* must maintain accurate and up-to-date records of all Equipment brought onto the Site.
- The records must specify the ownership status of each item of Equipment (owned, hired, or leased).
- These records must be made available to the *Service Manager* upon request.
- All Equipment must be maintained in good working order, and regular inspections must be conducted to ensure operational safety and compliance.
- The *Contractor* is responsible for the removal of all Equipment from the Working Areas upon completion of the Works or when no longer required.
- The *Contractor* must ensure that Equipment is positioned and operated in a manner that does not obstruct Site access, walkways, or operations by Others.

- Adequate barriers and warning signs must be in place when Equipment is in use to prevent unauthorized access or accidental interference.

5.7 Equipment provided by the *Employer*

Not applicable

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

Electricity and Power Supply

- The *Employer* will provide access to electrical power.
- The *Contractor* is responsible for installing appropriate temporary connections, ensuring safety compliance, and adhering to all regulatory standards.
- Power usage is restricted to activities directly related to the execution of the Works.

Electric power for construction, both 220V AC and 380V 3-phase supply, is supplied at Site free of charge, but connection fees are for the *Contractor's* account (Not included in price list, to be priced). All installations comply with the details set out in Kendal Maintenance Procedure- *Contractor's* Temporary Electrical Equipment Supply, and Construction Power Supplies (Occupational Health and Safety Act - Act 85 of 1993) and the Kendal Safety, Health and Environmental Specification for Contractors.

The *Employer* does not guarantee continuity of supply and no claims for standing time as a result of power failures will be considered (No Standby or generator power included in price list, can be added if required). The *Employer* connects distribution boards to a 380V three-phase AC power supply, only after the *Contractor* has submitted the valid Certificate of Compliance.

A written request, indicating the *Contractor's* requirements is submitted to the Service Manager as soon as possible after the Contract Date.

In order to comply with the Electrical Installation Regulations under the Occupational Health and Safety Act, no 85 of 1993 the following requirements must be met:

- Before electricity is supplied the *Contractor* is in possession of a valid certificate of compliance. Arrangements for the temporary energising of the installation to perform the required tests must be arranged with the Project Manager.
- The *Contractor's* electrical installation is inspected and tested by an accredited person to ensure that it complies with the requirements of the Occupational Health and Safety Act, 1993 and the code of Practice for wiring of premises, SABS 0142.
- After certificate of compliance is obtained, the *Employer* inspects the electrical installation and if satisfied, it is connected and supplied from the construction power supply.

Pneumatic Tools & Compressor

No pneumatic tools and mobile compressors included in price list, can be provided

Sanitary Facilities

Permanent toilets to serve the Power Station and urinals at the boundary area have been constructed by the *Employer* and all the *Contractor's* personnel may make use of these facilities if within the allocated site for execution of the Works.

Water Supply

Potable and raw water for construction purposes are also available free of charge at the nearest point of supply installed.

A written request, indicating the *Contractor's* requirements is submitted to the Service Manager as soon as possible after the Contract Date.

Permits

No work commences without the acceptance of the isolations by the *Contractor's* responsible person and the workman's register signed by all workers. The *Contractor* arranges for Two-(2) person to be appointed as the responsible person for permit requirements (Price list allows for two responsible persons, however we would like to re assess the quantity of responsible persons when *Contractor* plan is finalised). Permit applications must be done at least the day before scheduled work need to commence to allow enough opportunity for the operator to issue the plant. .

The contractor must provide a Responsible Person (RP) to request the permit to work and submit the authorisation to the PM for approval.

Waste Disposal

Waste disposal facilities, including general waste and hazardous waste disposal areas, will be provided by the *Employer*.

The *Contractor* is responsible for ensuring proper segregation, storage, and disposal of waste in compliance with local environmental regulations.

Any additional waste management requirements beyond what is provided by the *Employer* will be the *Contractor's* responsibility.

Additional Requirements

The *Employer* will not provide additional facilities or services beyond those stated above.

The *Contractor* is responsible for providing all other necessary site services, equipment, and infrastructure to complete the Works.

5.8.2 Provided by the *Contractor*

Not Applicable

5.9 Control of noise,dust,water and waste

Where applicable:

The *Contractor* must implement measures to control noise levels on-site in compliance with relevant local regulations and standards. Noise control must be a priority to ensure that it does not exceed the prescribed limits or cause unnecessary disturbance to surrounding communities and workers.

The *Contractor* is required to take all necessary precautions to minimize dust generation on-site, particularly during dry weather, excavation, or material handling processes.

The *Contractor* must ensure the proper management and disposal of waste generated on-site, in accordance with local waste disposal regulations and environmental requirements.

5.10 Hook ups to existing works

The adjacent plant and equipment may not be modified without written permission from the *Service Manager*. The *Contractor* complies with Eskom Life Saving Rules and will report any non-conformance.

5.11 Tests and Inspections

The Contractor shall perform all inspections, testing and verification necessary to demonstrate compliance with the Scope of Work. These shall include, but not be limited to:

- Calibration of field instrumentation with completed calibration records.
- Function checks, loop checks and stroke testing of field instruments and actuators.
- Sequence and trip testing of applicable plant systems.
- Daily plant inspections and recording of defects.
- Preventive and corrective maintenance inspections.

- Hot and cold commissioning tests following outages and plant modifications.
- Joint inspections with the Employer before return to service following outages.
- Maintenance and verification of Contractor test equipment, including valid SANAS calibration certificates where applicable.

6 List of drawings

6.1 Drawings issued by the *Employer*

Drawing will be supplied as required and will remain the sole property of Kendal Power Station.