

PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S SERVICE INFORMATION

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1 Description of the service

1.1 Executive overview

Kusile Power Station, situated in the Nkangala district of Mpumalanga province, is a coal fired power station generating 4 800MW with six (6) units. The plant is designed with provision of cable tunnels, building basements and associated manholes. Due to plant layout there is unwanted influx of water from various sources and slurry build up that negatively affects the cleanliness of the areas thus interrupting the much required maintenance requested in the different areas.

This has necessitated the requirement of a dedicated team required to perform works of draining excess material and cleaning of all areas referred to in the scope of work.

1.2 Employer's requirements for the service

The Employers requires the Contractor to supply the service for cleaning of cable tunnels, basements and manholes at Kusile Power Station for a period of 26 months as per task orders issued by the Employer.

The scope of work covers the following areas:

Auxiliary bays:

- Auxiliary bay – unit 1-6 ACC
- Auxiliary bay – unit 6 to Substation East
- Auxiliary bay – unit 1 to West wall
- Auxiliary bay – unit 1-6 ACC (A)
- Auxiliary bay – unit 1-6 ACC (B)
- Auxiliary bay – unit 1-6 Substation FGD (A)
- Auxiliary bay – unit 1-6 Substation FGD (B)

Tunnels

- Tunnels – between FGD unit 1 and 2
- Tunnels – between FGD unit 2.3 and 4
- Tunnels – between FGD unit 4, 5 and 2
- Tunnels – between FGD unit 5 and 6

Basements

- ACC electrical substation unit 1 – 6
- CPP electrical substation unit 1 – 6 (Ground floor)
- Auxiliary Bay 9m level LV switchgear room substation (unit 1-6)
- Auxiliary Bay 0m level LV switchgear room substation (unit 1-6)
- Auxiliary Bay 0m level MV switchgear room substation (unit 1-6)
- FFP electrical substation (Entire building)
- FGD electrical substation
- Compressor house east – electrical substation (entire building)
- Compressor house west – electrical substation (entire building)
- Substation south switchgear room (entire building)
- Hydrogen electrical substation
- Wastewater electrical substation
- Water treatment plant electrical substation
- Fire water electrical substation (fire water pump building)
- Tunnels between FGD unit 5 and 6 (entire building)
- Auxiliary substation A switchgear room
- Auxiliary substation B switchgear room
- Limestone and emergency ash handling electrical substation
- 10 year ash electrical substation
- North coal stock yard electrical substation

South coal stock yard electrical substation
Dirty dam electrical substation (entire building)

Manholes

MH 96 location
MH 159 location

The contractor is to provide all the required equipment and tools to perform the works. Below is the minimum identified by the Employer however the contractor is responsible for ensuring all equipment is identified and included.

Plant and machinery requirements:

Vacuum trucks
High water pressure jetting truck
30m long hydraulic pipe
Contractor tools and equipment
Sandbags (15kg) for barricading
Specialist equipment for the electrical detection
9kg DCP fire extinguisher
First aid kit

The identified resources for works identified by the Employer as a minimum are below, however it is the responsibility of the contractor to appoint all resources required.

Resources

Project/Site manager (average early career 5 – 9 years)
Site Supervisors (average early career 1 – 4 years)
Safety Officer (average early career 1 – 4 years)
Vacuum truck operators (average early career 1 – 4 years)
High pressure jetting truck operators (average early career 1 – 4 years)
Industrial cleaners (average early career 1 – 4 years)
Spotter (average early career 1 – 4 years)
Vehicle driver (average early career 1 – 4 years)
Labour for the use of equipment for detection cables

Note:

Cleaning will be done continuously until the work is completed. The Contractor to manage productivity of the employees to ensure work is completed in normal times, and if overtime is required to complete excess work to be approved by the service manager.

The contractor supplies proof that the staff performing a task has been trained and is aware of all conditions requirements pertaining to the use of the equipment that he is using, proof of such training must be kept and made available to the Employer on request.

The contractor staff shall wear uniquely always identified clothing which will identify the contractor.

The contractor will ensure that the work is always done under constant supervision.

The works are:

1. The service is for cleaning all the cable tunnels at Kusile Power Station including the sumps in the tunnels. Refer to the appendix A and B for the dimensions of the cable tunnel and basement. The electrical cables should also be washed off the slurry.
2. On the turbine (aux bay), work included cleaning of trenches, unblocking of drain lines and removal of slurry on the -5m level.
3. The tunnels are currently full of slurry and solids, the height of the slurry is estimated to be 1,7m high
4. Draining of the tunnel may be required at the beginning before work can start
5. The plant will be operational; it will not be switched off to allow cleaning and as a result there is a risk of having inflow into the tunnel whilst cleaning. Necessary measures to be put in place not to endanger any life
6. Sandbags are to be used to manage the inflow in certain areas where there would be continuous inflow
7. Accumulated settled solids in the tunnels shall be dislodged by high pressure water jetting and vacuumed using a truck, High pressure water using fire hydrants and nozzles will also be required

8. The vacuum material will be disposed of onsite. The exact area should be confirmed with the Project Manager when the work starts
9. In the cable tunnels, where cleaning will be taking place, there are electrical cables that should not be damaged. There is also a risk of sparks being emitted in the area during cleaning, the contractor to take necessary actions to mitigate damage to the plant and to safety of personnel
10. Respirators need to be provided when cleaning at the FGD cable tunnels
11. **NB:** All equipment, consumables, resources, diesel, etc. required to execute the scope are to be supplied by the contractor. The contractor shall compile the method statement of how the scope will be executed

During cleaning operations, the following safety measures shall be enforced:

- All personnel shall be provided with personal protective clothing including hard-hat, overalls, safety boots, water boots, gloves, safety glasses, hearing protection and a high visibility safety vest, coveralls, etc.
- All vehicles including mechanical equipment shall be fitted with audible warning devices to warn people behind the vehicles when the vehicles are reversing.
- Necessary approvals need to be sourced for vehicles to access Power block

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
BOP	Balance Of Plant
ORHVS	Operating Regulations For High Voltage Systems
PSR	Plant Safety Regulations
RP	Responsible Person
SHEQ	Safety, Health, Environmental and Quality
SOW	Scope Of Work
FGD	Flue Gas Desulphurisation
ACC	Air Cooling Conditioner
CPP	Condensate Polishing Plant
FFP	Fabric Filter plant

2 Management strategy and start up.

2.1 The Contractor's plan for the service

The contractor is to develop a resource plan according to the requirements of the scope of work. The plan for the cleaning of the areas to be issued by the contractor after the task order for the indicated area is issued. The plan will need to as a minimum include, number of resources allocated and duration.

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:
Project kick off meeting	3 days after contract award	Kusile Power Station	<i>Employer, Contractor and others</i>
SHEQ requirements clarification meeting	3 days after contract award	Kusile Power Station	<i>Employer, Contractor and others</i>
Execution progress meeting	Daily	Kusile Power Station	<i>Employer, Contractor and others</i>
Overall contract progress and feedback	Weekly	Kusile Power Station	<i>Employer, Contractor and others</i>
Risk register and compensation events	Daily	Kusile Power Station	<i>Employer, Contractor and others</i>
Other	As and when required	Kusile Power Station	<i>Employer, Contractor and others</i>

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 submits an organogram as per of the tender deliverables clearly depicting his/her people and their line of authority communications

The contractor appoints personnel to fulfil all legal requirements in writing in line with the OHS Act 85 of 1993 factories regulations.

2.4 Provision of bonds and guarantees

Not applicable

2.5 Documentation control

All contractual communications will be in the form of properly complied letter or forms as per TSC forms guidelines attached to emails and not as a message in the email itself. All documentation will be recorded on the contract file to indicate transmission. Where required by the Employer, a template for a specific document will be shared with the contractor.

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

_____ 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 4710303126;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

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

2.7 Contract change management

All changes to the contract such as contractor management changes or compensation events shall be communicated through standard NEC TSC 3 forms

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

Not applicable

2.9 Insurance provided by the *Employer*

As stated in the contract data

2.10 Training workshops and technology transfer

Not applicable

2.11 Design and supply of Equipment

On the contractor is to identify and provide al equipment which are required for the works

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

2.12.1 Equipment

None

2.12.2 Information and other things

He contractor is to provide at the end of the service period all SHEQ requirement fl=ile as well as security access documents.

2.13 Management of work done by Task Order

The Employer will issue a task order prior to the contractor accessing the identified area. The contractor will prepare the execution plan and resource requirements according to the requirements of the task order.

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

A Safety, Health, Environmental and Quality (SHEQ) specification is Kusile Power Station's minimum requirements also detailing constraints, which we are required to be met for the specific contract and for the duration of the contract period by the contractor.

The contractor is expected to develop a SHEQ plan which meets these requirements as well as relevant and other legal and other requirements applicable to the issued scope of work.

Kusile Power Station in no way assumes the contractor's legal responsibilities. The contractor is and remains accountable for the quality and the execution of his/her health and safety programme for his/her employees and appointed contractor employees.

The SHEQ specification reflects minimum requirements and should not be construed as all encompassing. The contractor shall comply with (SHEQ) requirements contained in Annexure B of this service information.

3.2 Environmental constraints and management

A Safety, Health, Environmental and Quality (SHEQ) specification is Kusile Power Station's minimum requirements also detailing constraints, which we are required to be met for the specific contract and for the duration of the contract period by the contractor.

The contractor is expected to develop a SHEQ plan which meets these requirements as well as relevant and other legal and other requirements applicable to the issued scope of work.

Kusile Power Station in no way assumes the contractor's legal responsibilities. The contractor is and remains accountable for the quality and the execution of his/her health and safety programme for his/her employees and appointed contractor employees.

The SHEQ specification reflects minimum requirements and should not be construed as all encompassing. The contractor shall comply with (SHEQ) requirements contained in Annexure B of this service information.

The *Contractor* shall comply with the environmental criteria and constraints stated in Annexure _____

3.3 Quality assurance requirements

The quality requirements are as per ISO 9001 and employer quality requirements as specified in the SHEQ specification in Annexure B.

4 Procurement

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

Tenderers shall subcontract a minimum of 5% of the contract value to an EME or QSE which is 51% owned by black people living in rural or underdeveloped area or townships. Potential scope to be subcontracted and/or outsourced is transport, PPE, truck and medicals

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

An investment of 2% CSI is accepted the contractor to contact the Employer Stakeholder Management for available projects.

4.2 Subcontracting

4.2.1 Preferred subcontractors

The contractor to submit details of the subcontractor at the contract kick-off meeting.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Not applicable

4.2.3 Limitations on subcontracting

Tenderers shall subcontract a minimum of 5% of the contract value to an EME or QSE which is 51% owned by black people living in rural or underdeveloped area or townships. Potential scope to be subcontracted and/or outsourced is transport, PPE, truck and medicals

4.2.4 Attendance on subcontractors

Not applicable

4.3 Plant and Materials

4.3.1 Specifications

Not applicable

4.3.2 Correction of defects

The contractor is to repair any damage to property in the affected area as a result of work performed

4.3.3 *Contractor's* procurement of Plant and Materials

Not applicable

4.3.4 Tests and inspections before delivery

Not applicable

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

Scaffolding required as per task order is to be provided by the employer

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 contractor is to inform the service manager of the request for access to site prior to the date of reporting to site. The contractor to report to Kusile Power Station security gate on arrival, to comply with all security requirements.

Lifesaving rules to be adhered at all times

All personnel must attend induction before working on site and must obtain gate permits via the service manager

Contractor to comply to the Eskom values and rules, e.g. No taking pictures without approval, no walking and texting

Access is limited and controlled by plant safety regulation requirements

No employee will be allowed to access the plant or to work without access permit issued

All personnel to work on the plant must be registered on the workers register by the responsible person

Each personnel to have an identification card at all times

Unauthorised access on site is prohibited. The personnel are expected to be at their working site area at all times

No recruitment on site or at the main access gates or any premises of the employer is allowed

All activities to comply with the OSHACT and regulations

Employer, to be current at all times (live document)

All work to be done according to the construction regulations at all times

5.2 People restrictions, hours of work, conduct and records

The contractor is responsible for management and administration of his people to comply with all the employer's requirements for the duration of the contract

Normal working hours

07h00 to 16h30 (Monday to Thursday)

07h00 to 12h00 (Fridays)

Overtime hours to be confirmed as per task order

The contractor keeps records of his people working on the affected property

Time sheets to be controlled weekly and signed off by the employer supervisor

No valuable assets of the contractor to be left on site without security approval.

5.3 Health and safety facilities on the Affected Property

Refer to section 3.1

5.4 Environmental controls, fauna & flora

Refer to section 3.2

5.5 Cooperating with and obtaining acceptance of Others

The contractor will be required to work with others with whom the contractor may be required to share the affected property
Requirements for liaison with and acceptance from statutory authorities or inspection agencies will be communicated when required.

5.6 Records of Contractor's Equipment

Records of all equipment on site including whether it is owned or hired, are to be kept by the contractor for reference during the duration of the services. The record will also be required during security checks.

5.7 Equipment provided by the Employer

The employer is to supply scaffolding requirements as per task order

5.8 Site services and facilities

5.8.1 Provided by the Employer

The employer will provide the contractor with the following services for the duration of the service on the affected property
Water
Electricity
Ablution facilities
Fire protection equipment
Waste disposal facilities
Other facilities e.g. canteen for personal accounts are available on site

NB: contractor shall provide everything else necessary for the providing the works

5.8.2 Provided by the Contractor

The contractor is to provide for himself the following:
Vehicles
Site establishment containers if required.
Personal protective equipment (branded with the contractors name) as per safe work requirements
Contractor shall provide everything else necessary for providing the services.

5.9 Control of noise, dust, water and waste

Refer to section 3.1

5.10 Hook ups to existing works

Refer to section 3.1

5.11 Tests and inspections

5.11.1 Description of tests and inspections

All works to be inspected by the employer supervisor prior to acceptance

5.11.2 Materials facilities and samples for tests and inspections

Not applicable

6 List of drawings

6.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Drawing number	Revision	Title
Annexure A identified areas measurements		

7. Annexure A: identified areas measurements

Description	Areas	Unit measure
Aux bay	1344	m2
Aux bay Unit 6 to Substation East	1104	m2
Aux bay Unit 1 to West Wall	1104	m2
Aux bay to ACC (Unit 1-6)	510	m2
Aux bay to Substation WFGD (unit 1-6)	885	m2
Tunnels between WFGD Unit 1 and WFGD 2	315	m2
Tunnels between WFGD Unit 2 & 3 and WFGD 4	700	m2
Tunnels between WFGD Unit 4 and WFGD 5 & 6	500	m2
Tunnels between Unit 5 tunnel and Unit 6 tunnel	512.5	m2
ACC electrical substation (Unit 1-6)	895	m2
CPP electrical substation (Unit 1-6) ground floor	841	m2
Auxiliary bay 9m level LV switchgear room substation (Unit 1-6)	411	m2
Auxiliary bay 0m level LV board room (Unit 1-6)	532	m2
Auxiliary bay 0m level LV board room (Unit 1-6)	514	m2
FFP electrical substation (Unit 1-6)	331	m2
WFGD electrical substation (Unit 1-6)	886	m2
Compressor house east electrical substation	1737	m2
Compressor house west electrical substation	1737	m2

Substation south switchgear room	1960	m2
Hydrogen electrical substation	328	m2
Waste water electrical substation	384	m2
Water treatment plant electrical substation	834	m2
Fire water electrical substation fire water pump building	955	m2
Substation east switchgear room	1201	m2
Auxiliary substation A switchgear room	1097	m2
Auxiliary substation B switchgear room	869	m2
Limestone and emergency ash handling electrical substation	869	m2
10 year ash electrical substation	743	m2
North coal stock yard electrical substation	855	m2
South coal stock yard electrical substation	869	m2
Dirty dam electrical substation	974	m2
Manhole 96	2678	m3
Manhole 159	2678	m3

8. Annexure B: SHEQ requirements

This SHEQ specification is Kusile Power Station's minimum requirements which are required to be met for the specific contract and the duration of the contract period by the contractor and where required the delivery organisation.

The contractor is expected to develop a SHEQ plan which meets these requirements as well as relevant and other legal and other requirements applicable to the issued scope of work.

Kusile Power Station in no way assumes the contractor's legal responsibilities. The contractor is and remains accountable for the quality and the execution of /his/her health and safety programme for his/her employees and appointed contractor employees

This SHE specification reflects minimum requirements and should not be construed as all encompassing.

Note:

All the requirements listed hereunder are in relation to the contract and do not supersede or replace any organisational SHE requirements.

Where requirements listed are already in place, then the organisational requirements must be taken cognisance of and listed in the respective SHE plans. If there are any additional Eskom and or legislative requirements listed in the SHE specification, then these must be addressed.

Refer to document named: KUS-20222070 rev 2.