

## PART 3: SCOPE OF WORK

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**U1-U6 milling plant tilling replacement for mills that are on services and new mill bodies on an as and when required basis” for 12 months at Arnot power station**

## **C3.1: EMPLOYER’S SERVICE INFORMATION**

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## **1 Description of the service**

### **1.1 Executive overview**

This document defines the technical requirements for the replacement of ceramic tiles on both Unit 1 tube mills and U2-6 vertical spindle mills.

**NOTE: The final SOW for replacement of WOI (150x100x12) weld on ceramic tiles on all mills will be determined by the condition of the mills during inspections at the time of work and as agreed between Eskom and the Contractor.**

The purposes of this Works Information document is to ensure that the replacement of ceramic tiles on all mills are carried out according to technical specifications and are all repaired mills are reliable once returned to service.

### **1.2 Employer's requirements for the service**

The *Contractor* provides qualified labour to carry out the service.

- The *Contractor* provides all required tools, consumables, and all necessary Personal Protective Equipment's to carry out the work. N.B No tools, consumables or PPE will be provided by the Employer.
- The *Contractor* is responsible for the safety of his own personnel by complying with OHS Act No.85 of 1993 and its Regulations.
- The *Contractor* performs work within the specified period and to the acceptable standard as agreed between Eskom and the *Contractor*.
- The Contractor performs quality control on own work as per pre-approved control plan before calling the Employer for final inspection.


### **1.3 Scope of work**

- 1. Supply and install missing, damaged and burnt ceramic tiles with WOI (150x100x12) weld on ceramic tiles and also using red silicon (BM500HT).**

#### **Areas to be covered**

- Mill body
- Mill body covers
- Unit 1 classifier raw coal pipes
- Classifier cones
- Classifier outlet pipes
- Unit 1 feeders
- Unit 1 raw coal square chutes
- Unit 2 -6 square to rounds
- Unit 1 knifegates
- Classifier vortex finder
- Unit 1-6 J bends
- Raw coal pipes

Name: John Khoza

Signature: 

### **2. Install Epoxy wear compound**

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### **Areas to be covered**

- Flanges between mill body and classifier
- Flanges between classifier outlet pipe and PF pipe
- Unit 1 trunnion tube

Name: John Khoza

Signature: 

## **1.4 Additional Requirements**

- After assessing the damaged holes, the *Contractor* must compile a detailed report confirming scope of work and send to the *Employer*. No work is to be carried out without *Employer's* scope approval.
- The *Contractor* will comply with the OHSA and Regulations
- The *Contractor* will give the assurance that he has the required skills and tools at his disposal to adequately carry out the Scope of Work as defined in this document.
- The *Contractor* must declare and keep a record of all spares, tools or equipment that will be brought to site on arrival. Failure to comply may lead to the forfeiting of *Contractor's* possessions.
- Each mill is expected to run for duration of at least 1200hrs (2 months) working hours without re-work.

### **1.4.1 Key Performance Indicators**

The performance of the Contractor shall be measured against the following indicators:

- Employer receives an electronic copy of the Contractor's reports in terms of this contract within 1 working day of each task order.
  - The Contractor is required to provide a program on repairs of holes with a completion date.
- A 1% penalty will be levied per task order for the late completion of the repairs of holes per day up to a maximum of 5% after 5 days.

- This means a penalty of up to 5% can be levied on each task order for late completion.

## **1.5 Interpretation and terminology**

Abbreviation	Meaning given to the abbreviation
SOW	Scope of Work
OHSA	Occupational Health and Safety Act
ISO	International Organization for Standardization
PTW	Permit to work
QCP	Quality Control Plan
PPE	Personal Protective Equipment

## **2 Management strategy and start up.**

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

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The Contractor to provide a detail program for approval on each task per mill after scope being approved by the Employer

**2.2 Management meetings**

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.

Daily plan and progress feedback meetings shall be held daily in the morning 7:00 am at the designated area by the *Employers* representative and the *Contractor*. In addition, the *Contractor* representative shall attend outage meetings.

Risk assessment and Pre-job brief per task to be discussed daily in the morning meetings .

Workers register to be signed in daily in the morning and sign out in the afternoon before knocking off.

**2.3 Contractor’s management, supervision and key people**

- All procedures, work instructions, forms and all contractual communications must be controlled for the duration of the contract.
- All contractual communications will be in the form of properly compiled letters or forms attached to e-mails and not as a message in the email itself.
- Inspections reports together with scope of work to be submitted to the Employer within 8 hours after inspection.
- All communication must be done through *Employer’s* Representative i.e. Contract Manager

**2.4 Documentation control**

- *Contractor* to submit the QCP’s with hold points to the *Employer* for approval
- All procedures, work instructions, forms and all contractual communications must be controlled for the duration of the contract.
- All contractual communications will be in the form of properly compiled letters or forms attached to e-mails and not as a message in the email itself.
- All communication must be done through *Employer’s* Representative i.e. *Service Manager*

**Use of standard forms**

- Early warning forms
- Non-conformance register form

**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

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*;
- The contract number and title;

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- *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;
- (add other as required)

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

## **2.6 Contract change management**

- Any changes or requirements will be discussed and agreed by both *Employer* and *Contractor* in writing before implementation.
- All compensation events shall be submitted in writing with a full motivation and detailed cost breakdown.

## **2.7 Records of Defined Cost to be kept by the *Contractor***

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

## **2.8 Insurance provided by the *Employer***

Insurance issues will be dealt with as per contract conditions

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

### **2.9.1 Information and other things**

Quality documents and data packs requested by the *Employer* will remain the property of the *Employer* at the end of contract

## **2.10 Management of work done by Task Order**

- The *Employer* shall provide the applicable specifications with the works instruction of each task order.
- *Contractor* shall respond to emergencies whenever required by the *Employer*.

## **3 *Contractor* shall comply with safety, environmental and legislative requirementHealth and safety, the environment and quality assurance**

### **3.1 Health and safety risk management**

Suppliers to comply with the latest version of Occupational Health and Safety Act No. 85 of 1993 and Eskom Health and Safety policy, procedures, specifications and guidelines

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## **4 Health and safety, the environment and quality assurance**

### **4.1 Health and safety risk management**

In addition to the requirements of the laws governing health and safety, Eskom may have some additional requirements particular to the *service* and the Affected Property for this contract. The text below provides for these being attached as an Annexure to this Service Information. PLEASE ALSO READ CORE CLAUSE 27.4 TOGETHER WITH Z7 IN THE ADDITIONAL CONDITIONS OF CONTRACT TO MAKE SURE THAT WHATEVER IS INCLUDED IN THE ANNEXURE FOLLOWS ON FROM THOSE CLAUSES.

The Divisional/Regional Safety Risk Manager or his representative having jurisdiction over the *service* must provide the relevant safety, health and environmental (SHE) criteria for incorporation into this Service Information. The SHE specification / scope must be signed off by the Divisional/Regional Safety Risk Manager or his representative confirming that the applicable safety criteria have been taken into account.

The Commodity Manager / Buyer must refer the tender to the Divisional/Regional Safety Risk Manager or his representative in order to evaluate against enquiry-specific safety criteria.

The Divisional Safety Risk Managers who will be responsible for the allocation of resources to assist P&SCM with the above processes are as follows:

- Generation: Roley McIntyre
- Transmission: Tony Patterson
- Distribution: Alex Stramrood
- Enterprises: Jace Naidoo
- Corporate: Kerseri Pather

The *Contractor* shall comply with the health and safety requirements contained in Annexure \_\_\_\_\_ to this Service Information.

### **4.2 Environmental constraints and management**

The Contractor shall comply with the environmental criteria and constraints stated in the Waste management procedure (ASEN 0008) and EH&S Incident management procedure 32-95.

The Contractor shall further comply with all Arnot procedures and policies and all level 3 documentation and legislations which the station prescribes to

### **4.3 Quality assurance requirements**

- The returnable in terms of Quality will be based on the Supplier Quality Management Specification 240-105658000. The supplier will submit the quality information based on the category that is relevant to them. Refer to document 240-105658000. In case where there are QCP (quality control plans) required also 3.2 and 5.1 of the document 240-105658000 will be applicable.

Employer has a right to issue an NCR should the Contract fails to meet the agreed target date or should the Contractor be unavailable when needed



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## 5 Procurement

### 5.1 People

#### 5.1.1 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.

#### 5.1.2 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.

#### 5.1.3 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.

### 5.2 Subcontracting

#### 5.2.1 Preferred subcontractors

N/A

#### 5.2.2 Subcontract documentation, and assessment of subcontract tenders

N/A

#### 5.2.3 Limitations on subcontracting

N/A

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#### **5.2.4 Attendance on subcontractors**

N/A

### **5.3 Plant and Materials**

#### **5.3.1 Specifications**

The contractor will be working on both Vertical spindle mills and Tube stein mills. Vertical spindle mill bodies are made of cast steel material and Tube mills components material is hard steel.

#### **5.3.2 Correction of defects**

- In case there is a defect due to *Contractor* poor workmanship that may cause delays during assembling of the mill or mill feeders, *Contractor* will be informed and must be available within 12 hours. The defect to be repaired at no extra costs charged by the *Contractor*. All labour, material and travel expenses will be for the *Contractor's* account.

N.B Each mill that ceramic tiles has been replaced should run 1200hrs without any defect. Should there be a defect while still under warranty, the *Contractor* will be notified and repairs to be done accordingly.

N.B Therefore, the Contractor will have report to Arnot Power station within 12 hours including non-working days (weekends and holidays)

#### **5.3.3 Contractor's procurement of Plant and Materials**

Specify any constraints on how the *Contractor* is to order, codify, expedite, freight, import, transport to the Affected Property and any other requirements for delivery and storage before installation. The *Employer* may require warranties from suppliers to be in favour of the *Employer* and not just to the *Contractor*. The *Employer* may also need schedules of vendor data for his own use after the end of the *service period*.

#### **5.3.4 Tests and inspections**

Approved Quality control plan and check sheets- to be used as a guideline for inspection and to ensure the quality of work.

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

Item	Date by which it will be provided
Induction	As and when the need arise
Permit to Work	Ongoing
Compressed air	Ongoing
Scaffolding	As and when the need arise
Relevant technical information, specifications and drawings where available.	Ongoing
Electrical supply	Ongoing

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### **5.3.6 Cataloguing requirements by the *Contractor***

**N/A**

## **6 Working on the Affected Property**

The Power Station is situated approximately 50km from Middleburg

Altitude (Elevation above sea level)	1636 m
Mean annual barometer pressure	84, 0 kpa
Maximum ambient temperature	38 degrees Celsius
Minimum ambient temperature	6 degrees Celsius
Maximum relative humidity	79%
Minimum relative humidity	10%

Arnot Power Station is situated in a summer rainfall area with an average annual precipitation of about 650mm falling almost entirely during the months of October to April. The average rainfall per month generally exceeds 40 mm during this period, although drought periods do occur which can last for 20 days or longer. Drought periods occur most frequently during the months of October/November and March/April. December is statistically the highest rainfall month with an average monthly rainfall of about 125mm. July has the lowest rainfall with an average monthly rainfall of about 3 mm. approximately 85% of the annual rainfall occurs in the months between October and February. January is normally the hottest month with an average daily maximum temperature of 38c with a minimum daily temperature in winter being about 6°c.

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

- No taking of pictures allowed on Employer's premises without prior approval or consent
- Contractor must attend induction before entering premises
- Contractor must make pre-arrangements before coming to Employer's site to allow Employer to make proper arrangements with Security. If no arrangements made, no access will be granted to the Contractor

### **6.2 People restrictions, hours of work, conduct and records**

- Monday – Thursday working time: 07H00 – 16H15
- Fridays working time: 07H00 – 12H00
- Any visits outside above timelines, arrangements must be made with an *Employer* in advance
- N.B Holes repairs must be done on a 24hour cycle and *Contractor* must provide enough resources to cover 24 hours to complete the activity per mill.

### **6.3 Health and safety facilities on the Affected Property**

Section 3 deals with contractual H & S requirements in addition to those of the OHSA Act. This section allows the *Employer* to state what measures are to be taken on the Affected Property by describing where First Aid facilities provided by the *Employer* are located and any other emergency arrangements. Do not use if already addressed in 2.3.

### **6.4 Environmental controls, fauna & flora**

**N/A**

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## **6.5 Cooperating with and obtaining acceptance of Others**

Other contractors and Eskom Employees working on the milling plant. Communication and Pre-arrangements to be done.

## **6.6 Records of Contractor's Equipment**

The Contractor must declare and keep a record of all spares, tools or equipment that must be brought to site on arrival. Failure to do so may lead to forfeiting some of your belongings.

## **6.7 Equipment provided by the Employer**

N.B No equipment to be provided by the Employer. The Contractor shall provide all required equipment, hand tools and power tools to execute the work.

## **6.8 Site services and facilities**

### **6.8.1 Provided by the Employer**

#### **Portable Water Supply**

- Potable water is available at the existing points

#### **Electrical Power Supply**

- Power is available at the existing points

#### **Toilet Facilities**

The employer provides the contractor access to existing toilet facilities. The contractor is to provide this facility should the existing facilities not be within reasonable distance from the working areas.

N.B The Employer will not assist the Contractor with arrangements of any of required tools

### **6.8.2 Provided by the Contractor**

- The Contractor must provide transportation, full protective equipment, accommodation, tools.
- The Contractor must provide daily timesheet and copy must be submitted to the Employer after every shift
- PPE to be supplied by the Contractor and must have contractor emblem for easy identification.
- The contractor to provide hand tools, power tools and consumables.
- The Contractor to provide electrical extension cords, lead lights and all required tools.
- The Contractor to provide grinders, welding machine and or required welding rods

## **6.9 Control of noise, dust, water and waste**

Contractor shall provide proper personal protective equipment's. No employee will be allowed on site without proper protective equipment (overalls, gloves, hard hat, safety boots/shoes, dust masks, ear protection, heat shields (if necessary), eye protection etc.)

## **6.10 Hook ups to existing works**

- All hook ups to existing structures in the plant shall be onto approved lifting beams and lifting points.

## **6.11 Tests and inspections**

### **6.11.1 Description of tests and inspections**

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Approved Quality control plan and check sheets– to be used as a guideline for inspection and to ensure the quality of work

The contractor to do quality check on their own for the ceramic tiles before informing the Employer for verification. Should obvious defects be identified due to Contractor incompetence and poor workmanship, the Contractor will be issued with Non-Conformance Register and necessary processes to be followed.

**6.11.2 Materials facilities and samples for tests and inspections**

N/A

## **7 List of drawings**

### **7.1 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- N/A

Drawing number	Revision	Title