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Medupi Power Station Scope of work – Burner	Unique Identifier:	240-
Fuel oil Pneumatic Cylinder supply and refurbishment	Revision:	1
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### 1. Introduction

The reliability and availability of the Burner system, in general, is a concern for Medupi Power station due to unplanned downtime, and it has contributed to production risks on the Units. Initiatives to improve the reliability and availability of the Boiler Plant, burner system amongst others includes, placing spares supply and refurbishment contracts to ensure continuous improvement of the Energy Availability Factor(EAF). The pneumatic cylinders(1-6 HJA11-56 AS001) form part of the combustion safety equipment therefore such equipment should be maintained and spares should be available at all material times to minimise plant downtime. The pneumatic cylinders form part of combustion equipment as per FFFR therefore its reliability is essential.

This document will describe the scope of work required for this contract.

## 2. Supporting Clauses

### 2.1 Scope

This document will cover the requirements for the Supply and refurbishment of Burner system Pneumatic cylinders.

## 2.1.1 Purpose

The purpose of this document is to provide the SOW for the Spares Supply and Refurbishment Contract.

### 2.1.2 Applicability

This document shall apply to requirements for the Supply and refurbishment of a specific spare for the Medupi Boiler Plant, Burner system. The battery limit for the scope is limited to pneumatic cylinder 1-6 HJA11-56 AS001.

### 2.1.3 Effective date

The document will be effective from the date of authorisation.

### 2.2 Normative/Informative References

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

### 2.2.1 Normative

- 1) ESKOM SHEQ Policy 32-727
- Life Saving-Rules 240-62196227 Medupi Power Station SHE File Evaluation Checklist 240-97661287

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#### 2.2.2 Informative

N/A

### 2.3 Definitions

Definition Explanation		
Contractor	Service provider contracted for the supply of spares and various services the machines	
Employer Eskom Medupi Power Station		

#### 2.4 Abbreviations

Abbreviation	Explanation	
SHE	Safety Health and Environmental	
SHEQ	Safety Health Environmental and Quality	
FFFR	Fosil Fuel Firing Regulations	

### 2.5 Roles and Responsibilities

Maintenance – Materials Management is responsible and accountable for ensuring that the Service is provided as per the SOW. Materials Management will also be managing the contract.

Engineering will be involved in documentation review and will be part of the quality control.

The commercial will be part of the contract placement process and communication with the contractor until contract award.

### 2.6 **Process for Monitoring**

N/A

### 2.7 Related/Supporting Documents

N/A

### 3. Scope of Work

The reliability and availability of the Boiler Plant, Burner system in general, is a concern for Medupi Power station due to unplanned downtime, and it has contributed too many production risks on the Units. Initiatives to improve the reliability and availability of the Boiler Plant, Burner system amongst others includes, placing spares supply and refurbishment contracts for continuous improvement on the plant on a daily basis.

### 3.1 Supply of Spares

#### The scope of this contract also includes the supply of spares as follow:

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### 1. **Description of Items:**

Material Group	Actuation	SAP No	Long Descritpion	Certificate of conformance
Pneumatic Cylinder Spare Kit	Pneumatic	0722142	KIT: TYPE: SPARE PART; APPLICATION: PNEUMATIC CYLINDER;COMPRISING: 2X CLAMPING LEVER,COVER STRIP,O-RING,2XSEAL(ITEM6),2X SEAL(ITEM8),WIPER,GREASE); SPECIFICATION:QM/146080/88; OEM P/N: QM/146080/88*	Upon Delivery the valve shall come with manufacturing data
Pnematic Cylinder	Pnuematic	0724828	CYLINDER ASSEMBLY, ACTUATING LINEAR: TYPE: M/146080/STROKE SPECIAL; BORE DIAMETER: 80 MM; STROKE: 500 MM; PRESSURE RATING: 8 BAR; SPECIFICATION: ASSEMBLY OF FITTING ACC DIN 3859; OEM P/N: M/146080/STROKE SPECI	Upon Delivery the valve shall come with manufacturing data
Pnuematic Cylinder Refurbishment overhaul	Pneumatic	N/A	The refurbishment of the cylinder,include replacing seals,cylinder internal components, fuction testing etc.	Certificate of compliance Pressure test certificate DataBook

### Contract Period: 5 year Contract

### 2. *Employer* anticipates Quantity of:

The estimated quantities the *Employer* anticipates will be required for the duration of this contract. This value will be used with other estimates to determine the overall contract value. It should be noted that this is just an estimate and it does not mean that the *Employer* will definitely consume the spares in the duration of the contract. These quantities are therefore not fixed and the *Contractor* will only supply spares when instructed by a task order, from the *Employer*, to do so.

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The refurbishnment as per maintance strategy will be done every philosophy outage as per Medupi power station outage listing(or as and when required) with a total of about 270 minor refurbishment and 135 complete overhaul for a 5 year period, alternatively as as when required during the contract period.

Medupi has 6 boilers and each boiler is equipmed with 30 Pnuemactic cylinder which toalst to 180 cylinders for Medupi .

DESCRIPTION	SAP NO	ESTIMATED QUANTINTIES	UNIT OF MEASURE
Pneumatic cylinder Kit	722142	180	EA
Pneumatic cylinder new 80mm stroke 500mm	724828	30	EA
Cylinder Repair only seals	Non stock	270	EA
Cylinder Repair Pressure Test only	Non stock	270	EA
Pnuematic Cylinder Refurbishment overhaul	Non stock	135	EA

3. The spares and components will be supplied to the "goods received" section of the Medupi main store where they will be received by the material management section. The spares will be delivered with all of the required data books and certificates, where required.

Medupi Stores Working Times:	Monday – Thursdays:	07h00 – 16h00
	Fridays:	07H00 – 12h00

- 4. Only once the spares have passed the Quality control checks and are booked into the system can payment be effected.
- 5. The new andrefurbished spare has to be the same in all respects when compared to the original equipment, supplied to Eskom by OEM under contract. This includes all aspects such as design, materials and material specifications, manufacturing, including manufacturing processes and

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acceptance testing. Where spares offered deviate from the original in any respect, it should be indicated to the *Employer*.

- 6. It is the *Contractor*'s responsibility to ensure that correct spares are delivered. If the incorrect spares are delivered, the spares will have to be replaced with the correct spares at the *Contractor* cost. This includes transport and delivery.
- 7. The Delivery and Transport Costs (including off-loading items) must be included in the quotation.

The following packaging requirements should be adhered to:

- a) The Goods are to be packaged in such a manner that they can be transported and stored for an extended period of time without resulting in damage to the goods.
- b) This includes damage due to moisture ingress, corrosion, vibration from the power station etc.
- c) Where lifting gear is utilised to move the goods, the packaging should allow the lifting operation and ensure that the goods are not damaged in any way during the process.
- d) It will also not be necessary to open packaging for any lifting or transport operation.
- e) Where eyebolts are fitted to move the goods, these eyebolts should be fitted in such a way that they can be easily removed and replaced with the Purchaser's eyebolts, ensuring that the packaging stays intact.
- f) The different spares types are to be packaged separately in such a way that each type can be stored separately.
- g) Packaging and labelling of spares should ensure that the spare can be identified without opening the packaging.
- h) Where possible the packaging should ensure that parts can be positively identified through the packaging. Where this is not possible, the packaging should allow opening and closing of the packaging and still maintain the packaging integrity afterwards.
- i) Delivery packaging to have the following detail on it as a minimum (removable adhesive sticker if possible):
  - Order number,
  - A short description of the component
  - The stock number
  - Material certificate
  - Pressure test certificates
  - Manufacturing date, where possible
  - Databook for refurbishment of parts.

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#### 4. Acceptance

This document has been seen and accepted by

Name Designation		Designation
	Phuti Mashita	Snr Supervisor Tech Maintenance
	Lindelani Mphohoni	Technician Maintenance

#### 5. Revisions

	Date	Rev.	Compiler	Remarks
Septe	mber 2024	0	Annette van Tonder	Draft

#### 6. Development Team

The following people were involved in the development of this document:

Name	Designation
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