| Eskom | Specification | Medupi Power Station |
|---|---|---|

Title: **Medupi Power Station Scope of work for the supply and delivery of boiler tubes protection shields and other boiler accessories**

| | |
|---|---|
| Document Identifier: | **241-2022757** |
| Alternative Reference Number: | **N/A** |
| Area of Applicability: | **Generation** |
| Functional Area: | **Outage Management** |
| Revision: | **2** |
| Total Pages: | **24** |
| Next Review Date: | **N/A** |
| Disclosure Classification: | **Controlled Disclosure** |

| Compiled by | Recommended by | Functional Responsibility: | Authorized by: |
|---|---|---|---|
| **JO Mekgwe** | **MB Matanda** | **T Matibhe** | **NC Monini** |
| **Pressure Parts System Engineer** | **Senior Advisor Boiler Engineering** | **Pressure Parts & HP Piping Outage Co-Ordinator** | **Middle Manager Outages** |
| **Date:** 2024-07-19 | **Date:** 2024/07/22 | **Date:** 2024/07/22 | **Date:** 2024/07/23 |

## Content

**Page**

## 1. Introduction

The availability of boiler tube protection shields and bangles is just as important as the boiler tubes they protect. In some areas such as sootblower paths, leading bottom tubes prone to fly ash erosion and falling ash at the boiler bottom slope are areas that without a protection shields, the time to failure due to the erosion can be shorter than the time to a planned philosophy outage. Protection shields ensures that boiler tubes can last until the next philosophy outage. Placing spares supply contracts minimises the chances of spares running out at the station and the administrative delays related to ordering spares for every time once-off orders are placed.

In addition, boiler accessories or boiler tube attachments such as retaining brackets, stopper blocks, jubilee clamps, forgings, header stubs, nozzles, plates and sleeves are also included.

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

## 2. Supporting Clauses

### 2.1 Scope

This document will cover the quantities for the supply of boiler tube protection shields and other boiler accessories for Medupi Power Station boilers. The supplier shall also provide the information and manufacturing drawings of the supplied products for cataloguing purposes.

#### 2.1.1 Purpose

The purpose of this document is to provide the material specifications and quantities for the supply of the boiler tubes protection shields and other boiler accessories for Medupi Power Station boilers.

#### 2.1.2 Applicability

This document shall apply to the material specifications and quantities for the supply of the boiler tubes protection shields and other boiler accessories for the Medupi Power Station boilers.

#### 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
2) Life Saving-Rules – 240-62196227 Medupi Power Station - SHE File Evaluation Checklist - 240-97661287
3) 240-87733094: Procurement of High Pressure Pipework and Boiler Tubing Material Standard in the Generation Division

4) 240-84513751: Material Specification and Certification guideline for power generation plant
5) 241-2022339: Medupi Power Station quality control and verification work instruction
6) BS EN 10216: Seamless Steel Tubes for Pressure Purposes – Technical Delivery Conditions
7) BS EN 12952: Water-Tube Boilers and Auxilliary Installations
8) BS EN 10204: Metallic Products – Types of Inspection Documents
9) BS EN 10222: Steel forgings for pressure purposes.
10) BS EN 10021: General technical delivery conditions for steel products
11) BS EN 10229: Evaluation of resistance of steel products to hydrogen induced cracking (HIC)

#### 2.2.2 Informative

N/A

### 2.3 Definitions

| Definition | Explanation |
|---|---|
| **Accessories** | Retaining brackets, stopper blocks, jubilee clamps, forgings, header stubs, nozzles, plates and sleeves |
| **Contractor** | Service provider contracted for the supply of spares and various services on the machines |
| **Employer** | Eskom Medupi Power Station |

### 2.4 Abbreviations

| Abbreviation | Explanation |
|---|---|
| SHE | Safety Health and Environmental |
| SHEQ | Safety Health Environmental and Quality |
| SOW | Scope of Work |

### 2.5 Roles and Responsibilities

Outage Management and Maintenance are responsible and accountable for ensuring that the Service is provided as per this scope of work.

Outage Management and Maintenance will be responsible for managing the contract.

Engineering will be involved in the documentation review and updating of the technical specifications and technical evaluation criteria.

Quality Control department will be involved in the quality control strategy and verification of documents (i.e. material certififcates) as well as verification and witnessing of delivered products at Receiving.

Procurement will be part of the contract placement process and communication with the contractor until the contract is awarded as well as and when required during the duration of the contract.

### 2.6 Process for Monitoring

N/A

### 2.7 Related/Supporting Documents

1) 240-87733094 Procurement of High Pressure Pipework and Boiler Tubing Material Standard in the Generation Division
2) 241-2022758 Medupi Power Station Tender Technical Evaluation Strategy for the Supply and Delivery of Boiler Tubes Protection Shields and other Boiler Accessories

## 3. Scope of Work

The availability of the boiler tubes protection shields, bangles, retaining brackets, stopper blocks, jubilee clamps, forgings, header stubs, nozzles, plates and sleeves is of utmost importance at all times for Medupi Power station due to the unplanned downtime, and it can contribute to production risks on the units.

## 3.1 Supply of Spares

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

### 3.1.1 Description of Items – Boiler Shields and Accessories:

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 45.50 | 3.5 | 3000 | ☒ | ☐ | 3000 | Halfmoon |
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 45.50 | 3.5 | 120R | ☐ | ☒ | 4000 | 90º bend, ¼ circle, 420mm straights on both sides to protect the intrados of the tube. |
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 2800 | ☒ | ☐ | 3000 | Halfmoon |

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 49.30 | 3.5 | - | ☐ | ☒ | 900 | Bend - (various) sample to be supplied |
| Superheater 1.2 | HAH31AC001 | 16Mo3 | 1.5415 | 45.60 | 3.2 | 100 | ☒ | ☐ | 50 | Full Sleeve |
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 1600 | ☒ | ☐ | 3000 | Halfmoon |
| Superheater 1.2 | HAH31AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 600 | ☒ | ☐ | 200 | Halfmoon |
| Superheater 1.2 Screen Tubes | HAH31-32 AC001 | 310SS | 1.4845 | 45.50 | 3.5 | 3000 | ☒ | ☐ | 100 | Halfmoon |

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Economiser | HAC10 AC001 | 310SS | 1.4845 | 45.50 | 3.5 | 600 | ☒ | ☐ | 200 | Halfmoon |
| Economiser | HAC10 AC001 | 16Mo3 | 1.5415 | 45.6 | 3.2 | 50 | ☒ | ☐ | 50 | Full Sleeve |
| Economiser | HAC10 AC001 | 310SS | 1.4845 | 45.50 | 3.5 | 3000 | ☒ | ☐ | 200 | Halfmoon |

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Reheater 1 | HAJ05 AC001 | X15Cr | 1.4828 | 49 | 3.0 | 50 | ☒ | ☐ | 50 | Full Sleeve |
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 600 | ☒ | ☐ | 2000 | Halfmoon |
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 1000 | ☒ | ☐ | 2000 | Halfmoon |
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 3000 | ☒ | ☐ | 2000 | Halfmoon |
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 200 | ☒ | ☐ | 4000 | Halfmoon |
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 100R | ☐ | ☒ | 1000 | 90° bend, ¼ circle, 420 mm straights on both sides to protect the extrado of the tube. |

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Reheater 1 | HAJ05 AC001 | 310SS | 1.4845 | 49.30 | 3.5 | 100R | ☐ | ☒ | 1000 | 90° bend, ¼ circle, 420 mm straights on both sides to protect the intrado of the tube. |
| | | | | | | | | | | |
| Superheater 2<br>(Includes the hopper tubes.) | HAH50 AC001 | 310SS | 1.4845 | 39.00 | 3.5 | 3000 | ☒ | ☐ | 1000 | Halfmoon. |
| Superheater 2 | HAH50 AC001 | 310SS | 1.4845 | 39.00 | 3.5 | 200 | ☒ | ☐ | 4000 | Halfmoon |
| | | | | | | | | | | |
| Reheater 2 | HAJ30 AC001 | 310SS | 1.4845 | 58.00 | 3.5 | 3000 | ☒ | ☐ | 6000 | Halfmoon |

| Component Description | KKS no. | Material Grade | Material Unique Number | Shield ID (mm) | Shield WT (mm) | Shield Length (mm) | Straight Shield | Bend Shield | Required Quantities | Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Superheater 3 | HAH70 AC001 | 310SS | 1.4845 | 43.40 | 3.5 | 3000 | ☒ | ☐ | 6000 | Halfmoon |
| Superheater 3 | HAH70 AC001 | 310SS | 1.4845 | 43.40 | 3.5 | 200 | ☒ | ☐ | 4000 | Halfmoon |
| | | | | | | | | | | |
| Jubilee Clamps 25-61mm | Various | - | - | - | - | EA | - | - | 100 000 | |
| Jubilee Clamps 38-71mm | Varions | - | - | - | - | EA | - | - | 100 000 | |

### 3.1.2 Description of Items – Various Plates:

| Component Description | KKS no. | Material Grade | Plate thickness WT (mm) | Material Number | Required Quantities | Comment |
|---|---|---|---|---|---|---|
| Evaporator Wall Fin Plates | HAD11-14 AC001 | 13CrMo4-5 | 8 | 1.7335 | 12 | Size: 1250 x 2500 |
| Evaporator Wall Fin Plates | HAD11-14 AC001 | 13CrMo4-5 | 6 | 1.7335 | 12 | Size: 1250 x 2500 |
| Evaporator Wall Fin Plates | HAD11-14 AC001 | 16Mo3 | 6 | 1.5415 | 12 | Size: 1250 x 2500 |
| Side Fire Wall Plates | HAD11-14 AC001 | 310SS | 10 | 1.4845 | 24 | Size: 1250 x 2500 |
| Side Fire Wall Plates | HAD11-14 AC001 | 310SS | 6 | 1.4845 | 4 | Size: 1250 x 2500 |
| SH 1.1 Fin Plates | HAH21-24 AC001 | 10CrMo9-10 | 10 | 1.7380 | 12 | Size: 1250 x 2500 |

| Component Description | KKS no. | Material Grade | Plate thickness WT (mm) | Material Number | Required Quantities | Comment |
|---|---|---|---|---|---|---|
| SH 1.2 Internal Supports plates various sizes (Lollipops) | HAH31-32 AC001 | 10CrMo9-10 | 15 | 1.7380 | 50 | - |
| SH 1.2 Internal Supports Plates various sizes (Lollipops) | HAH31-32 AC001 | 16Mo3 | 10 | 1.5415 | 50 | - |
| SH 1.2 Internal Supports Plates various sizes (Lollipops) | HAH31-32 AC001 | 16Mo3 | 8 | 1.5415 | 50 | - |
| SH 1.2 Screen Fin Plates | HAH31-32 AC001 | 7CrMoVTiB10-10 | 8 | 1.7378 | 12 | Size: 1250 x 2500 |
| Economizer Dust Arrestor various shapes | HAC10 AC001 | 16Mo3 | 6 | 1.5415 | 6 | - |
| Reheater 1 Dust Arrestor various shapes | HAJ05 AC001 | X10CrAlSi18 | 6 | 1.4742 | 6 | - |

| Component Description | KKS no. | Material Grade | Plate thickness WT (mm) | Material Number | Required Quantities | Comment |
|---|---|---|---|---|---|---|
| Reheater 2 Dust Arrestor various shapes | HAJ30 AC001 | X15CrNiSi25-20 | 6 | 1.4841 | 6 | - |
| Flow Screens 70.VEM 325A various sizes | HAC10 AC001 | 310SS | - | 1.4845 | 1100 | - |

### 3.1.3 Description of Items – Supports and Retaining Fins:

| Component Description | KKS no. | Part Description | Profile | Material Grade | Fin Wall Thicknss (mm) | Fin Height (mm) | Fin Length (mm) | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| Economiser | HAC10 AC001 | Retaining bracket plate | Sample to be provided | 13CrMo4-5 | 6 | 48 | 61 | 280 |
| Economiser | HAC10 AC001 | Stopper block plate | Rectangular | 13CrMo4-5 | 6 | 25 | 38 | 140 |
| Economiser | HAC10 AC001 | Stopper block plate | Rectangular | 13CrMo4-5 | 6 | 25 | 45 | 140 |
| Reheater 1 | HAJ05 AC001 | Retaining bracket plate | Sample to be provided | X10CrAlSi7 | 6 | 49 | 64 | 700 |
| Reheater 1 | HAJ05 AC001 | Stopper block plate | Rectangular | X10CrAlSi7 | 6 | 25 | 43 | 140 |
| Reheater 1 | HAJ05 AC001 | Stopper block plate | Rectangular | X10CrAlSi7 | 6 | 25 | 30 | 16128 |
| Superheater 2 | HAH50 AC001 | Retaining bracket plate | Sample to be provided | X10CrAlSi18 | 6 | 48 | 60 | 700 |

| Component Description | KKS no. | Part Description | Profile | Material Grade | Fin Wall Thicknss (mm) | Fin Height (mm) | Fin Length (mm) | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| Superheater 2 | HAH50 AC001 | Retaining bracket plate | Sample to be provided | X15CrNiSi20-12 | 6 | 48 | 60 | 700 |
| Superheater 2 | HAH50 AC001 | Stopper blockplate | Rectangular | X15CrNiSi20-12 | 6 | 25 | 43 | 140 |
| Superheater 2 | HAH50 AC001 | Stopper block plate | Rectangular | X10CrAlSi18 | 6 | 25 | 30 | 140 |
| Reheater 2 | HAJ30 AC001 | Dual tube Retaining bracket plate | Sample to be provided | X12CrNi25-21 | 8 | 146 | 70 | 420 |
| Reheater 2 | HAJ30 AC001 | Retaining bracket plate | Sample to be provided | X12CrNi25-21 | 8 | 51 | 70 | 700 |
| Reheater 2 | HAJ30 AC001 | Stopper block plate | Rectangular | X12CrNi25-21 | 8 | 25 | 43 | 140 |
| Reheater 2 | HAJ30 AC001 | Stopper block plate | Rectangular | X12CrNi25-21 | 8 | 25 | 35 | 140 |
| Superheater 3 | HAH70 AC001 | Multi tube Retaining bracket plate | Sample to be provided | X12CrNi25-21 | 8 | 900 | 71.5 | 70 |

| Component Description | KKS no. | Part Description | Profile | Material Grade | Fin Wall Thicknss (mm) | Fin Height (mm) | Fin Length (mm) | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| Superheater 3 | HAH70 AC001 | Multi tube Retaining bracket plate | Sample to be provided | X12CrNi25-21 | 8 | 900 | 71.5 | 70 |
| Superheater 3 | HAH70 AC001 | Multi tube Retaining bracket plate | Sample to be provided | X12CrNi25-21 | 8 | 900 | 71.5 | 70 |

### 3.2. Description of Items – Forgings (Boiler Pressure Parts / Tubes):

| Component Description | KKS no. | Part Description | Type | Size (OD mm x ID mm x Length mm) | Profile Angle | Material Grade | Norm Standard | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| Evaporator | HAD11-14 AC001 | Forging 1 Hopper Inlet | - | 41 x 25.5 | 79.19º | 16Mo3 | DBS31 T2 | 50 |
| Evaporator | HAD11-14 AC001 | Forging 2 Hopper Inlet | - | 41 x 25.5 | 60.49º | 16Mo3 | DBS31 T2 | 50 |
| Evaporator | HAD11-14 AC001 | Forging 3 Hopper Inlet | - | 41 x 25.5 | 90º | 16Mo3 | DBS31 T2 | 50 |
| Evaporator | HAD11-14 AC001 | Forging 4 Transition evaporator – superheater | A | 47.6/45 x 30 x 117 | 90º | 13CrMo4-5 | - | 50 |
| Evaporator | HAD11-14 AC001 | Forging 4 Transition evaporator – superheater | B | 47.6/45 x 30 x 177 | 90º | 13CrMo4-5 | - | 50 |
| SH 1.1 | HAH21-24 AC002 | Forging 4 Transition evaporator – superheater | C | 36.7 x 21.5 x 62 | 90º | 13CrMo4-5 | - | 50 |

| Component Description | KKS no. | Part Description | Type | Size (OD mm x ID mm x Length mm) | Profile Angle | Material Grade | Norm Standard | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| SH 1.1 | HAH21-24 AC002 | Forging 4 Transition evaporator – superheater | D | 36.7 x 21.5 x 83.3 | 90º | 13CrMo4-5 | - | 50 |
| SH 1.1 | HAH21-24 AC002 | Forging 4 Transition evaporator – superheater | E | 36.7 x 21.5 x 104.6 | 90º | 13CrMo4-5 | - | 50 |
| Evaporator | HAD11-14 AC001 | Forging 8 Evaporator spiral outlet | - | 45.4 x 31 | 90º | 13CrMo4-5 | DBS32 T2 | 50 |
| SH 1.1 | HAH21-24 AC002 | Forging 5 Split Vertical Tubing (V-Piece) | - | 50/45 x 31/21.5 x 144 | 30º | 13CrMo4-5 | DBS 31 T2 | 50 |
| SH 1.1 | HAH21-24 AC002 | Forging 6 Vertical Tubing Outlet (T-Piece) | - | 57/46 x 30.5 x 225 | 90 º | 13CrMo4-5 | DBS 31 T2 | 50 |
| SH 1.2 Screen | HAH31-32 AC001 | Forging 7 Superheater 1.2 Screen | - | 50 x 31/30.5 x 87 | 90 º | 7CrMoVTiB10-10 | DBS 31 T2 | 50 |
| SH 1.1 | HAH21-24 AC002 | Forging 9 Superheater 1.1 inlet | - | 36.5 x 22 x 55 | 90 º | 13CrMo4-5 | DBS 32 T2 | 50 |

| Component Description | KKS no. | Part Description | Type | Size (OD mm x ID mm x Length mm) | Profile Angle | Material Grade | Norm Standard | Required Quantities |
|---|---|---|---|---|---|---|---|---|
| SH 1.2 | HAH31-32 AC001 | Forging 10 Superheater 1.2 screen (V-Piece) | - | 48.3 x 31 x 189 | 30° | 7CrMoVTiB10-10 | DBS 31 T2 | 50 |

### 3.3. Description of Items – Forgings (HP Pipewort / Thick Wall Components System):

| Component Description | KKS no. | Part Description | Type | Size (OD mm x WT mm x Length mm) | Material Grade | Norm Standard | Required Quantities |
|---|---|---|---|---|---|---|---|
| Reheater Spray Attemperators | HAJ11-14 AH001 | Thermal Shield | - | OD 470 x 10.00 MT x 4600 | 10CrMo9-10 | - | 2 |
| Reheater Spray Attemperators | HAJ11-14 AH001 | Nozzle Injection | - | O.D 101 x 101 MT x 1000 | 11CrMo9-10 | - | 6 |
| Superheater Spray Attemperators | HAH54-57 AH001 | Thermal Shield | - | OD 193.7 x 8.80 MT x 4600 | 10CrMo9-10 | - | 2 |
| Superheater Spray Attemperators | HAH54-57 AH001 | Nozzle Injection | - | O.D 101 x 101 MT x 1000 | X10CrMoVNb9-1 | - | 2 |

**3.4. Contract Period:** 7 Years (84 months)

**3.5. *Employer* anticipates Quantity of: To be determined when orders are placed as and when required.**

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.

*It is a requirement that during the contract period, the supplier reserves 10% inventory of the total lengths per type and size so that the delivery time is 24 hours from order.*

**3.6.** Manufacturing drawings to be supplied for each spare supplied. All requirements that will be necessary to develop the drawings will be made available by Eskom (i.e. samples, scans, etc). The drawings supplied shall belong to Eskom for further use to source the material.

**3.7.** The spares and components will be supplied to the "goods received" section of the Medupi PS main store where they will be received by the material management section and "verified + accepted" by quality control personnel. 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 |

**3.8.** Only once the spares have passed the Quality Control verification and are booked into the system can payment be effected.

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

**3.10.** 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.

**3.11.** The Delivery and Transport Costs (including off-loading items) must be included in the quotation.

The following packaging requirements should be adhered to:

a) Submit as a minimum, a type 3.1 material certificate as per EN 10204 for every delivery for each spare.
b) 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.
c) This includes damage due to moisture ingress, corrosion, vibration from the power station etc.
d) 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.
e) It will also not be necessary to open packaging for any lifting or transport operation.
f) 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.
g) The different spares types are to be packaged separately in such a way that each type can be stored separately.
h) Packaging and labelling of spares should ensure that the spare can be identified without opening the packaging.
i) 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.
j) 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
    - Heat Number
    - Manufacturing date, where possible

## 4. Acceptance

This document has been reviewed and accepted by:

| Name | Designation |
|---|---|
| Rulani Masingi | Manager Project Services |
| Kgabo Chosi | Senior Supervisor – Mechanical Maintenace |
| Thokozane Nkosi | Senior Techinician – Mechanical Maintenance |

## 5. Revisions

| Date | Rev. | Compiler | Remarks |
|---|---|---|---|
| July 2024 | 2 | Oratile Mekgwe | Review quantities and contract duration |
| February 2024 | 1 | Oratile Mekgwe | First Edition |

## 6. Development Team

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

| Name | Designation |
|---|---|
| Bernard Matanda | Senior Advisor - Boiler Engineering |
| Bongani Masilela | Senior Engineer - Boiler Plant Care |
| Mazwendoda | Engineer - Boiler Plant Care |
| Tumi Malefane | Repair Co-ordinator – Maintenance Quality Control |
| Karabo Raphefo | Senior Engineer - Boiler Engineering |
| Siyalo Buthelezi | System Engineer – Boiler Engineering |