



Scope of Work

Technology

Title: **The Supply and delivery of Dust Handling Plant Chains, Elastic Pins and Mater Links to Tutuka Power Station - Main Stores on “an as and when required” basis for a period of 5 years**

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1. INTRODUCTION

The store always would have DHP chains, elastic pins and master links in the Main store. The spares are manufactured at the Original Specifications and Manufacturing Drawings. The dust handling plant is a critical plant and the plant need to be in continuous operation from Unit Outage to Unit outage. It will ensure empty hoppers and low dust emissions. In case of conveyor and bucket elevator breakage, it can be repaired in a short duration with spares availability in the stores.

The five-year contract will ensure that the Supplier can supply the chains and its components in the shortest delivery period. Eskom would then purchase the chains and its components directly from the chain manufactures.

2. SUPPORTING CLAUSES

2.1 SCOPE

The Supplier is to manufacture all the dust handling chains as per the original specifications and manufacturing drawings as per the Supplier's design. The Supplier is to monitor the chains and chain spares stock levels in the main stores. If the stock level of any chain or chain spares are below the minimum stock level, then the Supplier is to manufacture and supply relevant chains and spares to match the maximum stock level of each chain and chain parts. The end user will submit picking tickets for the stores which chains and chain spares are required for upcoming Boiler Outages. Then the Supplier to is deliver these chains, elastic pins and master links with-in two to ten weeks for the relevant boiler outage. These chains and chain spares should be in the stores before the relevant boiler outage starts.

2.2 PURPOSE

The purpose of this report is to outline the scope of work for the five-year supply contract.

2.3 APPLICABILITY

This document specific to Tutuka Power Station only.

2.4 EFFECTIVE DATE

The effective date will be from the authorisation date.

2.5 NORMATIVE/INFORMATIVE REFERENCES

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

Normative

- [1] ISO 9001 Quality Management Systems
- [2] National Water Act, 1998 (Act No. 36 of 1998)
- [3] Occupational Health and Safety Act (No. 85 of 1993)

Informative

[1] N/A

2.6 DEFINITIONS

None

2.7 ABBREVIATIONS

Abbreviation	Description
DHP	Dust Handling Plant
HS	High Speed
LS	Low Speed
BOQ	Bill of Quantities
SOW	Scope of Work

2.8 ROLES AND RESPONSIBILITIES

Maintenance Department

- Responsible to coordinate the works, all contract management requirements and liaising with the *Contractor*
- Responsible for supervising the works being executed at all times

Principal *Contractor*

- Responsible for the manufacturing, supply, refurbishment and delivery of chains and chain components

Tutuka Quality

- Ensures that quality legislation and standards are adhered to, and quality practices are implemented at all times during manufacturing and refurbishment of spares.

Tutuka Engineering

- Review the scope of work for manufacturing, supply, refurbishment and delivery of the various chains and chain components.
- Involvement with the final quality inspections of manufactured and refurbished spares.

2.9 PROCESS FOR MONITORING

2.10 RELATED/SUPPORTING DOCUMENTS

NEC

3. CONSTRAINTS

3.1 GENERAL CONSTRAINTS

N/A

3.2 SITE CONSTRAINTS

N/A

4. SCOPE OF WORK

The Supplier is to manufacture all the dust handling chains as per the original specifications and manufacturing drawings as per the Supplier's design. The Supplier is to monitor the chains and chain spares stock levels in the main stores. If the stock level of any chain or chain spares are below the minimum stock level, then the Supplier is to manufacture and supply relevant chains and spares to match the maximum stock level of each chain. The end user will submit picking tickets for the stores which chains and chain spares are required for upcoming Boiler Outages. Then the Supplier is to deliver these chains, elastic pins and master links within two to ten weeks for the relevant boiler outage. These chains and chain spares should be in the stores before the relevant boiler outage starts.

In some cases, the precipitator parts do fall into the hopper conveyors and then these foreign materials then bend the chain flights, where these relevant chains are still new. The chain supplier then needs to collect these chains with bent flights from site and repair it and deliver it back to the Main Stores. The chain supplier is to cut off the bent flights of these chains and then weld on new flights as per original specifications.

The Supplier is to contact the Main Stores, 48 hours before any delivery is made at the Main Stores. Take note that the main Stores are open from 08h00 up to 15h30 from Mondays to Thursdays and the Main Stores are open from 08h00 up to 11h00 on Fridays. It is preferred not to do any deliveries on Fridays and Public Holidays and Week - Ends. Urgent deliveries can be made after hours, when arranged with the Main Stores. When the Supplier is at the Power Station West Main Gate, he/she is to ask the Security Personnel at the Main Access Gate to contact the Operating Shift Manager, so that the Operating Shift Manager can call out the Standby Store Personnel.

The *Supplier* implements a quality system and maintains the quality system until the delivery of all Dust handling plant chains and chain spares. The system will be to the *Purchaser's* satisfaction and will be accepted prior to the signing of the *contract*. The *Supplier* will be subject to periodic audits by the *Purchaser* in order to ensure compliance with the system. Any deviations will be corrected to the *Purchaser's* satisfaction. Pull out strength certificates must be supplied with every chain before delivery is made to site.

Lead times are critical and is as follows:

- Chains: 10 weeks
- Chain elastic pins: 2 weeks
- Bucket elevator chain master links: 2 weeks
- Replace bent flights on the hopper and transfer conveyor chains: 8 weeks.

The Table below describes each chain and chain parts of the Dust Handling Plant Chains, with the stock numbers.

Item No.	Description
1.	37515 CHAIN, POWER TRANSMISSION; PITCH 152.4 MM, MATERIAL STL, LENGTH 85 M, APPLICATION ELEVATOR, DOUBLE BAR BUSH TYPE; WITH ATTACHMENT FOR BUCKET IN 85M LENGTHS, PART NUMBER: AKCG-82683-810. EVERY 15 TH LINK MUST BE A MASTER LINK.
2.	39413 CHAIN, CONVEYOR; PITCH 145 MM, MATERIAL STL, LENGTH 39.5 M, POWER TRANSMISSION; TYPE 15 IN; FOR USE WITH PRECIPITATOR HOPPER, REFERENCE NO: 142V-BT-1-50/12, PART NUMBER: RAK83179-85
3.	0730036 MASTER LINKS, DIMENSIONS: L168 X T82 X PIN 8 X 50 MM, MAGNANESSE; LENGTH: 168 MM; SPECICATION: PINS 2N19 X 60 HRC; BUSHES 2N3 TENSILE STRENGTH 650 KN SIDE BARS 5510/200 FOR THE BUCKET ELEVATOR DOUBLE BAR BUSH TYPE CHAIN
4.	92861 PIN: TYPE CONVEYOR, 6 MM DIAMETER, 35 MM LENGTH, MATERIAL SS, FFT: ELASTIC PIN, BUHLER-MIAG, FOR USE WITH CONVEYOR CHAIN DUST HANDLING PLANT, PART NUMBER: UNN18012-097
5.	217685 CHAIN, CONVEYOR; PITCH 140 MM, MATERIAL STL, LENGTH 2.84 M, POWER TRANSMISSION, PART NUMBER: AKWC-95188-850

5 LIST OF DRAWINGS

DRAWINGS ISSUED BY THE *PURCHASER*

- Hopper conveyor chain assembly, BT-1-50/12: Drawing number: 21,61/96570 Rev 0.
- Transfer conveyor chain, 142V, BT2-625 x 50 x 16: Drawing number: 21,61/96571 Rev 0.
- Bucket elevator chain, 152,5 x 82: Drawing number: 21,61/96569 Rev 0

Please note that these drawings are general arrangement drawings, and the chain *Supplier/Manufacturer* would have the manufacturing drawings.

5. PRICE LIST (FIVE YEARS DURATION)

Item No.	Description	Unit	Qty	Rate	Total Price
1.	37515 CHAIN, POWER TRANSMISSION; PITCH 152.4 MM, MATERIAL STL, LENGTH 85 M, APPLICATION ELEVATOR, DOUBLE BAR BUSH TYPE; WITH ATTACHMENT FOR BUCKET IN 85M LENGTHS, PART NUMBER: AKCG-82683-810	Meter	2300		
2.	0730036 MASTER LINKS, DIMENSIONS: L168 X T82 X PIN 8 X 50 MM, MAGNANESSE; LENGTH: 168 MM; SPECICATION: PINS 2N19 X 60 HRC; BUSHES 2N3 TENSILE STRENGTH 650 KN SIDE BARS 5510/200 FOR THE BUCKET ELEVATOR DOUBLE BAR BUSH TYPE CHAIN	Each	1500		
3.	217685 CHAIN, POWER TRANSMISSION: TYPE CONVEYOR, 140 MM PITCH, MATERIAL STEEL, 2,84 M LENGTH, PART NUMBER: RAK73150-86, REFERENCE: 142V-BT-2-50-16	Meter	4300		
4.	CHAIN, POWER TRANSMISSION: TYPE CONVEYOR, 140 MM PITCH, MATERIAL STEEL, 2,84 M LENGTH, PART NUMBER: RAK73150-86, REFERENCE: 142V-BT-2-50-16. REPLACE THE BEND FLEIGHTS. CHAIN COLLECTION AND DELIVERY.	Meter	1600		
5.	39413 HOPPER CONVEYOR CHAIN, PITCH 145 MM, MATERIAL STL, LENGTH 39,5 M, POWER TRANSMISSION, TYPE 15 INCH, REFERENCE NO: 142V-BT-1-50/12 , PART NUMBER: RAK83179-85	Meter	5500		
6.	HOPPER CONVEYOR CHAIN, PITCH 145 MM, MATERIAL STL, LENGTH 39,5 M, POWER TRANSMISSION, TYPE 15 INCH, REFERENCE NO: 142V-BT-1-50/12, PART NUMBER: RAK83179-85. REPLACE THE BEND FLEIGHTS. CHAIN COLLECTION AND DELIVERY.	Meter	3200		
7.	92861 PIN: TYPE CONVEYOR, 6 MM DIAMETER, 35 MM LENGTH, MATERIAL SS, FFT: ELASTIC PIN, BUHLER-MIAG, FOR USE WITH CONVEYOR CHAIN DUST HANDLING PLANT, PART NUMBER: UNN18012-097	Each	2500		

The total of the Prices

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- CPA will be fixed and firm for the first year, CPA will only be applicable from year 2,3,4,5

6 PROCEDURE FOR SUBMISSION AND ACCEPTANCE OF *SUPPLIER'S* DESIGN

- The *Supplier* supplies the spares as per *Supplier's* design and manufacturing drawings.

A. OTHER REQUIREMENTS OF THE *SUPPLIER'S* DESIGN

Packaging / Crating

- The *Supplier* shall be responsible for the packaging of all Dust handling plant spares delivered to Tutuka Power Station – Main Stores.
- All the spares supplied *shall* be individually wrapped as per the Material Control, Preservation, Storage and Handling procedure
- Ownership will only be transferred to the *Purchaser* upon payment
- Inform contract releaser about delivery

B. USE OF *SUPPLIER'S* DESIGN

- As per original Supplier's design and manufacturing drawings.

C. MANUFACTURE & FABRICATION

- As per original Supplier's design and manufacturing drawings.

D. FACTORY ACCEPTANCE TESTING (FAT)

- Hold & witness points and QC to be done with the end user for the chains at the supplier before the delivery.

E. OTHER TESTS AND INSPECTIONS AND COMMISSIONING IN PLACE OF USE

The supplier to submit material certificates for the chains.

F. OPERATING MANUALS AND MAINTENANCE SCHEDULES

N/A

7 SUPPLY REQUIREMENTS

- The Supply Requirements for this contract are in an Annexure A of the Contract Data provided by the *Purchaser*.
- Batches to be clearly marked and packed according to the required specifications.

8 SPECIFICATION OF THE *SERVICES* TO BE PROVIDED

- All equipment / spares must be on time of required order date
- Transported by road on suppliers costs
- *Supply Manager*/ Supervisor to be informed when delivery will be done at least 2 days upfront
- No deliveries to be done after 11h00 on Fridays, Weekends or public holidays, except on emergency basis
- Pallets to convey the batch must be strong enough to carry and transport the load at anytime
- All vehicles to be roadworthy

9 CONSTRAINTS ON HOW THE *SUPPLIER* PROVIDES THE GOODS

A. PROGRAMMING CONSTRAINTS

- Refer to Annexure A “**The Supply Requirements for this contract**”
- Late deliveries due to transportation or labour strikes
- Goods not packed correctly

B. WORK TO BE DONE BY THE DELIVERY DATE

- Acceptance, off-loading and QC
- Ensure that the delivered goods are signed for.

C. MARKING THE *GOODS*

- Batches to be clearly marked and packed according to the required specifications and stock numbers.

D. CONSTRAINTS AT THE DELIVERY PLACE AND PLACE OF USE

- Forklift/ overhead crane with driver will be supplied by *Eskom* for offloading
- Deliveries of *goods* done during weekends, public holidays and after hours where there is no one
- No gate pass confirmation
- Induction not arranged by the *Supply Manager*.

E. COOPERATING WITH OTHERS

- N/A.

F. SERVICES & OTHER THINGS TO BE PROVIDED BY THE *PURCHASER* OR *SUPPLIER*

- *Purchaser* to ensure access on site for deliveries during normal hours
- *Purchaser* to arrange induction
- *Supplier* to provide proper transportation for spares.
- Forklift/ overhead crane with driver will be supplied by *Eskom* for offloading

10 ACCEPTANCES

This document has been seen and accepted by:

Name	Designation
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11. REVISIONS

Date	Rev.	Compiler	Remarks
03 December 2023	1	E van Rensburg	Document development

12. DEVELOPMENT TEAM

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

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13. ACKNOWLEDGEMENTS

N/A