

 Eskom	Scope of Work	Kusile Power Station
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Title: **Kusile Power Station Supply and Delivery of Gear Pumps Scope of Work**

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1. Introduction

Kusile Power Station requires spares for maintenance of Variable Speed drive Hydraulic Couplings. The purpose of this document is to provide the technical scope of work for the establishment of a contract to Supply and deliver Original Equipment Manufacturer (OEM) spares, for Boiler Feed Pump Variable Speed Drive Hydraulic couplings and their associated auxiliary equipment for Kusile Power Station

2. Supporting Clauses

2.1 Scope

The scope of work (SOW) specifies the required spares to be supplied by the *Supplier* on an as and when required basis and conditions for acceptance. The scope included here does not substitute procurement procedures that will be followed during the procurement process.

2.1.1 Purpose

The purpose of this document is to provide scope of work and technical information for the purchase of Variable Speed drive Hydraulic coupling and their associated auxiliary equipment Spares and ensure that all maintenance spares, which Kusile Power Station is procuring, are correct.

2.1.2 Applicability

This document is applicable to Kusile Power Station.

2.1.3 Effective date

This document will be effective from the date of its 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] ISO 9001 Quality Management Systems
- [2] 36-681 Generation Plant Safety Regulations
- [3] 32-727 SHEQ Policy
- [4] 240-83797737 In- Service monitoring of Lubricating oils and Hydraulic fluids
- [5] 240-84513751: Material Specification and Certification Guideline for Power Generation Plant
- [6] 240-86546783: Procurement Standard for Material Certification Requirements Applicable to Metallic Products Used on Low and Medium Pressure Applications
- [7] 240-54820279: Receive Materials

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- [8] BS EN 10204 (2004) - Metallic products -Types of Inspection Documents
[9] 240-106024999_Kusile Power Station Feedwater and HP Heating Maintenance Spares Strategy
[10] Table 1 –Variable Speed drive Hydraulic coupling spares
[11] Table 2 – List of Standards applicable for use

2.2.2 Informative

N/A

2.3 Definitions

Definition	Explanation
Contractor	Service provider contracted to provide a specific spares & documentation to Kusile Power Station. Referred to as the Supplier on this document.
Employer	Kusile Power Station
Disclosure Classification	Controlled Disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

Abbreviation	Description
ISO	International Organisation for Standardisation
KPI	Key Performance Indicator
OEM	Original Equipment Manufacturer
OHS	Occupational Health & Safety
PSR	Plant Safety Regulations
SHEQ	Safety, Health, Environmental & Quality
SOW	Scope Of Work

2.5 Roles and Responsibilities

2.5.1 Contractor

- To Supply and Deliver Gear Pumps for Kusile Power Station. , according to the specifications and technical requirements on this document.
- Contractor shall submit all documentation as requested by the Employer.

2.5.2 Employer

- Compiles and submit scope of work with technical specifications.

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- b) Performs Quality Control of all spares on delivery at the Employer premises.

2.6 Process for Monitoring

This document will be a once-off document to state the scope of work to supply and deliver Gear Pumps contract.

2.7 Related/Supporting Documents

N/A

3. Scope

To supply and deliver Gear Pumps Scope of Work

4. Description of the works

The works is to Supply and Deliver Gear Pumps for Kusile Power Station with technical specification in a spares list. The spares are listed in Table 1.

Table 1: Gear Pumps

Material Number	Equipment Short description	Units
0502109	PUMP: TYPE: LUB OIL GEAR; DRAWING NO: B114116--06-12-IC02-00003 REV 0; FOR USE ON HOWDEN PA FAN; KKS HFE13/23AP001	EA
0616928	PUMP, ROTARY: TYPE: DOUBLE GEAR; PORT SIZE: 1/2 X 1-1/4 IN; CAPACITY: 88 LPM; SPEED: 1450 RPM; RATING: 20 MPA; APPLICATION: BFI SYSTEM; MOUNT: FLANGE; REFERENCE NO: 23794/1/2; 23795/1/2	EA
0616929	PUMP, ROTARY: TYPE: DOUBLE GEAR; PORT SIZE: 1-1/4 X 1 IN; CAPACITY: 45 LPM; SPEED: 1450 RPM; RATING: 28 MPA; APPLICATION: BFI SYSTEM; MOUNT: FLANGE; REFERENCE NO: 23796/1/2; 23797/1/2	EA
0621676	PUMP, ROTARY: TYPE: GEAR; PORT SIZE: 1-1/4 X 1 IN; CAPACITY: 30 LPM; SPEED: 500-3000 RPM; RATING: 250 BAR; DRIVER: GEAR PUMP; MOUNT: FLANGE; SUPPL P/N: P17-33	EA
0621679	PUMP, ROTARY: TYPE: GEAR; PORT SIZE: 1/2 X 1/2 IN; CAPACITY: 9 LPM; SPEED: 500-3000 RPM; RATING: 150-170 BAR; DRIVER: GEAR PUMP; MOUNT: FLANGE; SUPPL P/N: P3-6.2/PGP-503	EA
0621680	0621680 PUMP RTRY:P11-8/PGP511A0080;GEAR;11 LPM	EA

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	PUMP, ROTARY: TYPE: GEAR; PORT SIZE: 1-1/2 X 1/2 IN; CAPACITY: 11 LPM; SPEED: 500-3500 RPM; RATING: 250 BAR; DRIVER: GEAR PUMP; MOUNT: FLANGE; SUPPL P/N: P11-8/PGP511A0080	
0642496	PUMP, ASSEMBLY: TYPE: DOUBLE GEAR; APPLICATION: MILLS HYDRAULIC OIL PUMP SYSTEM; REFERENCE NO: PGE104-2200/1100-RBR1/1N-3900; SUPPL P/N: 3510532; SQUARE FLANGE; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	EA
0642546	PUMP: TYPE: EXTERNAL GEAR; SIZE: 1 IN; CAPACITY: 3.15 CM3/REV; APPLICATION: HYDRAULIC OIL PUMP REJECT; REFERENCE NO: PGE101-315-RBQ1-N-3700; SUPPL P/N: 3510531	EA
0679944	COUPLING: TYPE: GEAR SPACER; SIZE: 178 MM; MATERIAL: SM45C; CONNECTION 1: PUMP; CONNECTION 1 SIZE: 32 MM; CONNECTION 2: MOTOR; CONNECTION 2 SIZE: 60 MM; PLEASE PROVIDE ALL DOCUMENTS ON EVERY DELIVERY, 20GDE-SPACER-COUPLING-140MM BDSE	EA

4.1 Documentation

The following are the *Supplier's* requirements:

- a) The *Supplier* will ensure proper handling of the spares (from procurement of equipment, storage and transportation).
- b) The spare must be to the exact same specification as installed in the plant and specified on this scope of work document. *Notwithstanding the stipulated condition that the Supplier is responsible for verifying the correctness of the spares information provided by the Employer in relation to the existing installed spare. This may include the Supplier consulting the original supplier of the spare to ensure correctness of information provided by the Employer.*
- c) The *Supplier* will supply any additional information such as brochure, general arrangement drawing, certificates, detailed specification, data sheet, Settings Document for programmable electronic cards etc. Check sheets or drawings for quality inspections.
- d) The *Supplier* provides the *Employer* with additional spares information and verifies information required in the attached data capturing forms (DCF).
- e) The *Supplier* shall supply preservation and storage procedure/s, where applicable.
- f) The *Employer* may make clarification sessions available to either prospective *Supplier/s* in order to further assist the prospective *Supplier's* to meet the requirements of the work to be performed by the *Supplier*.
- g) The *Supplier* must ensure that all components supplied must be individually packed in such a way as to protect the parts during transport and storage. The packaging must also include the necessary labels to identify the items.

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4.2 Acceptance of Spares

4.2.1 Spares Identification

Lists all the spares to be procured under this SOW. This list corresponds to the provided electronic copy of the DCF's that contain more information about the required spares.

Each spare is identifiable by means of an Eskom SAP Material number (as is used in the Power Station), part description, OEM and/or OEM part number.

4.2.2 Obsolescence

The Supplier shall inform the Employer immediately where spares are found to be obsolete before the alternative spares is supplied, the Supplier shall indicate this to the Employer and indicate viable alternatives thereof.

4.2.3 Packaging

- I. All supplied spares shall be packaged in such a manner that they will be transported and stored without damage. This includes preventing damage due to moisture ingress, dust and foreign objects. The contractor's procedure shall be used Transportation and Storage.
- II. Different spare types shall be packaged separately such that each spare type can be stored separately. Packaging shall be such that the spare can be identified without opening the packaging. Packaging shall be of material that will not be damaged, to an extent possible, by harsh weather conditions during transportation. If that is not possible, then the packaging shall be protected against such conditions.
- III. Where possible, packaging to be such that procured spares can be positively identified through the packaging. Where this is not possible, the packaging to be such that it allows opening and closing of packaging and still maintain the packaging integrity thereafter.
- IV. Delivery packaging shall include as a minimum the following details:
 - a) Purchase Order Number
 - b) Part Description
 - c) Part number
 - d) Eskom SAP Material number
 - e) Drawing number, where applicable
 - f) Physical address of Kusile Power Station and the *Supplier*
 - g) Contact details of the *Supplier*
 - h) Delivery note number

4.2.4 Acceptance of spares

- a) No incorrect, damaged or faulty spares will be accepted.
- b) All the spares will be inspected and accepted by Engineering and/or OEM Technician before payment could be processed.

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- c) Data capturing forms information must be supplied and must meet an acceptable level.
- d) The Supplier must ensure that the supply and preservation of spares is done in compliance with preservation specifications and good engineering practice.
- e) The Supplier to advise the Purchasers warehouse/stores on effective storage of spares and preservation.
- f) Upon delivery of the goods at the Eskom stores, an inspection of goods and the receipt must be conducted by the End-user and the Supplier with 48 hours of delivery. There must be an approved list of appointed quality inspectors available with specimen signatures and this must be updated annually. As per Work Instruction, Receive Materials – 240-54820279.
- g) The Supplier must supply the Purchaser with warrantee certificates, test certificates and the complete data book of spares at the time of delivery which shall be uploaded into the SAP system Goods Receipt document as per Work Instruction, Receive Materials - 240-54820279.
- h) The Supplier must deliver the goods as per the agreed to delivery times.
- i) The Supplier to provide 3.1 Material certificates as a minimum, where applicable.

4.2.5 Information to be provided to the Supplier

The *Supplier* is provided with electronic Data Capture Form (DCF) for each spare required. The *Supplier* is required to ensure that the correct information is captured on the DCF's. The DCF's are required by the *Purchaser's* Material Management System to be able to book the item in the store and the information should also be sufficient to procure the correct spares in future. Most of the DCF's have been populated by the *Purchaser* where information was available. This information may not be correct and needs to be reviewed and verified/corrected as part of the *Services*.

The DCF's are provided in Microsoft Word format. The *Supplier* needs to ensure the 'Track Changes' function is selected 'on' so that any changes to the existing information as well as inserted information can easily be identified and tracked. The following information needs to be provided as detailed as possible on the DCF's.

- a) Verify the existing information that is already populated on the DCF's and make changes where required. Ensure the 'track changes' function is on.
- b) Populate/verify all fields highlighted in 'yellow' on the DCF's, in the electronic format provided.
- c) Supply additional information in the field "Free Format Text" or "Purchase order text" on the DCF's. This includes:
 - The standards or specification that the product has to conform to.
 - Add any spares information which has been omitted, which is deemed relevant for spares identification, packaging and protection requirements during transportation and storage.
 - The Quality Control requirements for manufacturing and testing of the product to ensure that the spares conform to the correct specifications or standards, including certificates and test results, that is required with delivery of the goods.
- d) Supply any other additional information that has not been specified on the DCF's but necessary for storage, preservation, installation and utilisation of spares where applicable.

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Such information includes brochures, technical data, etc. These DCF's with the added information needs to be made available electronically to the employer.

- e) Supply any other additional information that has not been specified on the DCF's but necessary for storage, preservation, installation and utilisation of spares where applicable. Such information includes brochures, technical data, etc.

4.3 Spares Management

The Purchaser may request the Supplier to provide accurate description of all spare parts included in the spares list.

4.4 Equipment Required

The Supplier and his sub-suppliers must possess the tools and equipment to satisfy the requirements for the scope.

4.5 Consumables Required

The Supplier must supply his own consumables to satisfy the requirements for scope.

4.6 Workshop

The Supplier and his sub-suppliers are required to have suitable premises with the required tools and equipment to be able to conduct the scope of work. Eskom reserves the right to inspect the workshop premises to make sure that it is kept up to standard.

4.7 Planned KEY PERFORMANCE INDICATORS (KPI)

- a) The KPI's will be used to determine the successful performance of the scope. The Supplier is required to perform in order to meet these targets. The KPI's are to be agreed to between parties and are subject to change on an annual basis, based on the need.
 - o First committed delivery date
 - o Quality
 - o Non-compliance to the agreed Scope of Work, hold points and Quality Control Plans

5. Acceptance

This document has been seen and accepted by:

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6. Revisions

Date	Rev.	Compiler	Remarks
February-2022	1		First Issue

7. Development Team

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

8. Acknowledgements

N/A

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