Eskom	Strategy	Medupi Power Station

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Compiled by	Supported by	Authorised by
.....	.....	.....
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Date: 19 August 2024	Date: 19 August 2024	Date: 2024-08-19

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1. INTRODUCTION

Medupi Power Station is in the process of establishing contract for Refurbishment of all Pumps for a duration of 60 Months. An invite is to be issued for prospective suppliers to participate in the tendering process for the said contract. This document sets out the method and criteria that will be used to technically evaluate the tenders for documented works instruction (241 -20228: Medupi Power Station Pumps Repair Scope of work Rev 1).

2. SUPPORTING CLAUSES

2.1 SCOPE

The document describes the acceptable and unacceptable risks and qualifications and /or conditions.

The Tender Technical Evaluation Strategy will define the following technical evaluation criteria:

- Mandatory Evaluation criteria
- Qualitative Evaluation criteria
- TET Member Responsibilities

No changes will be permitted to the evaluation criteria once the relevant Departmental Maintenance Manager approves the Technical Evaluation Strategy.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

2.1.2 Applicability

This document applies to the Tender Evaluation Team for Medupi Power Station Pumps Repair Scope of work 241-20228 Rev 1 in accordance with the authorised procurement strategy.

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] 240-53716746: Tender Technical Evaluation Report Template

[2] 240-53716712: Tender Technical Evaluation Results Form Template

[3] 240-53716726: Tender Technical Evaluation Scoring Form Template

[4] 240-53716769: Tender Technical Evaluation Strategy Template

[5] 32-1034: Eskom Procurement and Supply Chain Management Procedure

[6] 241 -20228 Medupi Power Station Pumps Repair Scope of work Rev 1

2.2.2 Informative

[7] ISO 9001 Quality Management Systems

2.3 DEFINITIONS

2.3.1 Classification

Controlled Disclosure: Controlled Disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
BOQ	Bill of Quantity
MMD	Mechanical Maintenance Department
ISO	International Standard Organisation
N/A	Not Applicable
OEM	Original Equipment Manufacturer
SOW	Scope of Work
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure.

2.6 PROCESS FOR MONITORING

The tender technical evaluation is monitored as part of the Procurement process.

2.7 RELATED/SUPPORTING DOCUMENTS

None

3. TENDER TECHNCIAL EVALAUTION STRATEGY

This section details the methodology to be employed by Eskom in scoring the “Technical” category of the tender evaluation. This evaluation exercise is performed by the appointed Eskom TET members.

The evaluation of the tenders will be based on the tenderer’s ability to meet the technical requirements. The evaluation consists of mandatory criteria and qualitative criteria. Results of mandatory evaluation will be “Compliant” or “Non-Compliant.”

The qualitative evaluation shall apply a weighted score card approach to evaluate the tenders against the specifications and Employer’s requirements. Table 1 below shall be used for scoring method.

Table 1: Scoring Method

SCORE	PERCENTAGE	DESCRIPTION
5	100	**COMPLIANT** ▪ Meet technical requirement(s)/AND. ▪ No foreseen technical risk(s) in meeting technical requirements.
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** Meet technical requirement(s) with; ▪ Acceptable technical risk(s) AND/OR; ▪ Acceptable exceptions AND/OR; ▪ Acceptable conditions.
2	40	**NON-COMPLIANT** ▪ Does not meet technical requirement(s) AND/OR; ▪ Unacceptable technical risk(s) AND/OR; ▪ Unacceptable exceptions AND/OR; ▪ Unacceptable conditions.
0	0	**TOTALLY DEFICIENT OR NON-RESPONSIVE**

3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%. This score is applicable to the qualitative evaluation criteria.

3.2 MANDATORY EVALUATION CRITERIA

All tenders will need to pass the mandatory section, the mandatory evaluation will be on a YES/NO basis as to whether the criteria are met or not. An assessment of “NO” against criteria will immediately disqualify the submission and no further assessment will be made. Refer to **Table 3** for mandatory requirements.

3.3 QUALITATIVE EVALUATION

Tenders who pass through the mandatory criteria shall then proceed to the qualitative evaluation. These sections shall be sub-divided into the following section with assigned weight/percentage as per **Table 2** below.

Table 2: Qualitative Evaluation Criteria

Technical (100%)	
Company Profile	40%
Key Personnel	20%
OEM support	20%
Turnaround Time to Repair	20%
TOTAL (100%)	
Overall minimum threshold for qualification (80%)	

4. MANDATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

Criteria Ref #	Mandatory Technical Criteria Description	Reference to Technical Specification	Requirements
1.	**Quality Management Systems/Policy**	Proof of Quality management System/Procedure/ Policy such as ISO 9001 certification.	Yes/No

QUALITATIVE TECHNICAL EVALUATION CRITERIA

Notes:

- The scores to this section will be allocated as per Table 1.
- The BOQ is listed in annexure A of this document.
- The information/documents provided by the Tenderer shall be subjected to a verification processes.

4.1 TECHNICAL SCORING CRITERIA

Table 4: Technical Scoring Criteria

TECHNICAL EVALUATION CRITERIA	SUBCRITERIA	EVIDENCE	SCORING CRITERIA	Sub Weighting (%)	Weighting (%)
COMPANY PROFILE	Required Company Previous Experience	• List of similar work and/or any tenders previously received with traceable references. The list shall provide with company/ business unit and experience. It must show that the work involved the refurbishing of pumps related to SOW. • Attach Purchase Orders	0= Totally deficient or Non response 2= 40% Non Compliant • Failed to Comply to requirements. • Company Experience 1-3 years in refurbishing pump related to SOW. • Less than 5 Purchase Orders related to refurbishment of pumps related to SOW. 4= 80 % Compliant with Associated Qualifications • Proof of evidence submitted	**40 %**	**40%**

			• Company Experience 3-5 years in refurbishing of pump related to SOW. • 5 to 10 Purchase Orders related to refurbishment of pumps related to SOW. 5= 100 % Compliant • Proof of evidence submitted. • Company Experience more than 5 years in refurbishing centrifugal pumps. • More than 20 Purchase Orders attached for previous works related to refurbishment pumps related to SOW.		

	Proven Experience in the Refurbishment of pumps	• Tenderer shall provide proof of previously used and fully signed quality control plan (QCP) or Inspection and Test Plan (ITP) for repairing pump models related to BOQ/SOW • Tender shall provide pump performance test Certificates for pumps previously refurbished related to Pump Models listed in the BOQ/SOW	0= Totally deficient or Non response 2= 40% Non Compliant • Proof of evidence partially submitted • Evidence of Previously signed QCP's limited to less than 5 pump models listed in the BOQ. • Previous Performance Test Certificates submitted, less than 5 pump models from the list. 4= 80 % Compliant with Associated Qualifications • Proof of evidence partially submitted • Evidence of Previously signed QCP's limited to less than 10 pump models listed in the BOQ. • Previous Performance Test Certificates submitted, less than 10 pump models from the list. 5= 100 % Compliant • Proof of evidence submitted • Evidence of Previously signed QCP's submitted more than 10 pump models listed in the BOQ.	**30%**	

			• Previous Performance Test Certificates submitted, more than 10 different pump models listed in the BOQ.		
	Workshop	Tender shall have a Workshop for repairing of pumps. Proof of the place shall be provide as below: ▪ Detailed Profile showing all required equipment and set up. ▪ Photographic Evidence and address of the place.	0= Totally deficient or Non response 2= 40% Non Compliant • Proof of evidence Partially submitted • Profile with less details 4= 80 % Compliant with Associated Qualifications • Proof of evidence partially submitted • Photographic evidence submitted 5= 100 % Compliant • Extent Proof of evidence submitted. • Photographic evidence clearly submitted.	**30%**	

			• Legitimate Proof of address of the workplace. • Detailed equipment set, types of equipment to be used submitted.		
KEY PERSONNEL	**Technician/ Supervisor**- Well experienced Technician/ Supervisor with adequate track and supervision experience.	• Attach 1X CV with Qualification of N Diploma/ N6 Mechanical Engineering Qualifications with minimum of 3 years' experience related to SOW. • Submit Certified Proof of Qualifications Documents	0= Totally deficient or Non-response 2= 40% Non Compliant ▪ Failed to comply to requirements. ▪ Personnel has limited experience to the nature of works required. 4= 80 % Compliant with Associated Qualifications • Proof of National Diploma/N6 Mechanical Engineering submitted • Experience related to pump industries 2+ years Mechanical Experience related to SOW 5= 100 % Compliant • Proof of National Diploma/N6 Mechanical Engineering with • 3+ years Experience related to SOW	**30%**	**20%**

	Quality Controller- Well Experienced QC Co-ordinator with Level 2 Inspector Certification and minimum of 2 years' Experience in related SOW.	Attach CV's with certified copies of Qualifications (level 2 Inspector Certification) Technical background and Certificate in a as proof.	0= Totally deficient or Non-response 2= 40% Non Compliant ▪ Failed to comply to requirements. ▪ Personnel has limited experience to the nature of works required. ▪ 4= 80 % Compliant with Associated Qualifications • Level 2 Inspector Certificate • And 2+ Scope related Experience. 5= 100 % Compliant • Level 2 Inspector Certificate • And 4+ Scope related Experience.	**30%**	
	Artisan- Mechanical Artisan with N3 Mechanical Engineering Qualification and Trade test Certificate and experience related to SOW	Attach CV's with minimum N3 Mechanical Engineering certified Qualifications plus Trade Test Certificate as Proof.	0= Totally deficient or Non-response 2= 40% Non Compliant ▪ Failed to comply to requirements. ▪ Personnel has limited experience to the nature of works required.	**40%**	

			4= 80 % Compliant with Associated Qualifications • N3 Engineering Qualifications with proof and Trade Test. • Experience related to SOW 2+ years' Experience related to SOW. 5= 100 % Compliant • N3 Engineering Qualifications with proof and Trade Test • 4+ years' Experience related to SOW.		
OEM Support	Tenderer shall have an OEM appointment letter for supply of spares for required repairs	Tenderer shall have an agreement with the proposed OEM for procurement of spares required for new and refurbishment of items listed on BOQ as proof.	0 = Totally deficient OR Non-Response 2 = 40% NON-COMPLIANT ▪ Letter submitted but not satisfactory ▪ When less than 10 % of OEM items are covered as per BOQ. 4 = 80% COMPLIANT WITH ASSOCIATED QUALIFICATIONS ▪ Letter provided and proof that the OEM has given		**20%**

			the permission to tenderer to supply and distribute spares. ▪ When 30 % (OEM) items as per BOQ are covered 5 = 100% COMPLIANT ▪ Letter provided and proof that the OEM has given the permission to tenderer to supply required spares. ▪ When 50 % and more (OEM) items as per BOQ are covered		
Turnaround time to repair	Tender shall provide the estimated repair and delivery timelines of each critical spare listed on BOQ/similar application from a moment the PO is received.	The tenderer is to demonstrate the ability to repair and deliver within a set timeline of less than 12 weeks. ▪ Provide schedule for repairing of pumps listed on BOQ/similar application. ▪ Provide schedule previously completed with a PO number.	0 = Totally deficient OR Non-Response 2 = 40% NON-COMPLIANT ▪ When all repairs and deliveries are over 20 weeks. 4 = 80% COMPLIANT WITH ASSOCIATED QUALIFICATIONS ▪ When all repairs are between 16 to 20 weeks.		**20%**

			5 = 100% COMPLIANT ▪ Meet technical requirement(s)/AND; ▪ When all repairs and delivery are within 12 to 16 weeks.		

5. TECHNICAL EVALUATION MEMBERS

5.1 TET MEMBERS DETAILS

Table 5: Technical Evaluation Members

TET number	TET Member Name	Designation
TET 1	Katlego Mathibedi	Senior Engineer Auxiliary
TET 2	Zolisa Gaga	Senior Supervisor Maintenance
TET 3	Nyameko Mkhatshane	System Engineer Auxiliary
TET 4	Dipolelo Matjipa	System Engineer Turbine
TET 5	Chuma Ndzala	System Engineer Auxiliary
TET 6	Mufarisi Manyuha	Fire & HVAC System Engineer
TET 7	Maureen Makhanda	Senior Supervisor MMD Boiler

5.2 TET MEMBERS RESPONSIBILITIES

Table 6: TET Members Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	TET 6	TET 7
1	X	X	X	X	X	X	X
2	X	X	X	X	X	X	X
3	X	X	X	X	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**	**TET 4**	**TET 5**	**TET 6**	**TET 7**
1	X	X	X	X	X	X	X
2	X	X	X	X	X	X	X
3	X	X	X	X	X	X	X
4	X	X	X	X	X	X	X

6. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Tshepo Sethosa	Auxiliary Maintenance Manager
Pontsho Letsholonyane	Contract Manager
Aubrey Mokgotho	Assistant Officer - Materials Management
Kgabo Choshi	Boiler Maintenance Manager
Lebo Pebane	Manager- Material Management
Mahlane Letselane	Turbine Maintenance Manager

7. REVISIONS

Date	Rev.	Compiler	Remarks
May 2022	0	Zolisa Gaga	New Document
August 2024	1	Zolisa Gaga	Final document for Authorisation

8. DEVELOPMENT TEAM

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

- Zolisa Gaga
- Tshepo Sethosa
- Nyameko Mkhatshane

9. ACKNOWLEDGEMENTS

None

ANNEXURE A: BILL OF QUANTITY (BOQ)

Table 1. List of pumps Description and Models

PLANT	KKS	DESCRIPTION/MODEL	SERIAL NUMBER
RO1 Feed pump	0 2GDK01 AP011/021	MTC A 100/3-8	Serial :501403470/001000/01
RO2 Feed Pump	0 2GDK10 AP011/021	MTC A 100/3	Serial: 9971913416/200/2
Raw Water Feed Pump	0 2GAF01 AP001 /011	STEEL - SEWATEC E 100-250 GH	Serial: 9971899890/400/2
CIP Pumps	0 2GDK15 AP011/21	CPK 80-200	Serial : 9971899890/300/1
Concentrate pumps	0 2GDK20 AP011/21	CPKC 50-160	Serial:9971913416/100/1
Sludge recycle pump	0 0GDS02 AP001/011/021	Sewatec E 100-250G; Volute casing pump with single-vane (E) impeller.	Serial: 9971899890/300/1
Vacuum systems pump	0 0GDK46 AP061/071	Centrifugal Pump; ETA 32-160; 20m3/hr; 2875rpm;27.7M serial 9971629876/400	Serial : 9971629876/400/1
GTM vacuum seal water supply pump	0 0GDK15 AP001/011	Centrifugal Pump; ETA 32-160; 20m3/hr; 2875rpm;27.7M serial 9971629876/400	Serial : 9972768288
Backwash balance tank mix pump	0 0GDK13 AP011/021	Centrifugal Pump; ETA 50-200; 30m3/hr; 2940rpm; Motor: 11kW	Serial: 9971667026/200/1
Backwash balance tank discharge pump	0 0GDK13 AP041/051	Centrifugal Pump; ETA 125-315; 195m3/hr; 1470rpm Motor: 22kW	Serial : 9974026837/100/2
Organic scavenger fd pump	0 0GDK14 AP031/041/051/061	Centrifugal Pump; ETA 150-400; 252m3/hr; 1482rpm; Motor: 55kW	Serial : 9974990366/100
CEDI feed pump	0 0GDF20 AP001/011/021	Centrifugal Pump; ETA 200-40; 600m3'hr; 1489rpm; 90kW	Serial : 9971628885//200/1
UF fd pump & main UF bw pump	0 0GDK06 AP021/031/041	Centrifugal Pump; ET 250-40; 800m3/hr; 1489rpm; Motor: 110kW	Serial : 9973811932/100/2
UF fd pump & main UF bw pump	0 0GDK17 AP001/011/021	Centrifugal Pump; ET 250-40; 896m3/hr; 1480rpm; Motor: 110kW	Serial : 9971629852/100/1

Clarified water pump	0 0GDK04 AP001/011	Centrifugal Pump; ETA 300-35; 1445m3/hr; 1492rpm; Motor: 110kW	Serial : 9971635434/100/1
Demin water recycle pump	0 0GDK50 AP051/061/071	Centrifugal Pump; ETA-B 200-33; 600m3/hr; 1480rpm; Motor: 55kW	Serial : 9971629872/100
GTM feed pump	0 0GDK44 AP021/032/041	Centrifugal Pump; ETA-B 200-50; 600m3/hr; 1486rpm; Motor: 160kW	Serial : 9971629876/100/1
RO1 high pump	0 0GDK27 AP041/051/061/071	Centrifugal Pump: MTC D 125/2-10.1	Serial : 5394662/01000/01
RO2 feed pump	0 0GDK35 AP041/051/061/071	Centrifugal Pump: MTC D 125/2-10.1	5394662/002000/02
Demin service pump	0 0GDK44 AP061/071	Centrifugal Pump; CPK-C 32-125 (C); 7 m3/hr; 2875rpm; Motor: 1.1kW	Serial : 9971629876/200/2
Regen pump & Concentrate pump	0 0GDK37 AP001/011	Centrifugal Pump: CPK C 50-160	Serial : 9971629860/300/2
Regen pump & Concentrate pump	0 0GDK76 AP031/041/051	Centrifugal Pump: CPK C 50-160	Serial : 9973917316/100/2
Process drain pump	0 0GDK68 AP021/031	Centrifugal Pump: CPK C 50 -160	Serial: 9971629852/700/2
RO1 flushing pump	0 0GDK37 AP001/011	Centrifugal Pump: CPK C 65-200	Serial : 9971629860/300/2
RO / UF CIP pump, CEDI CIP pump & RO Concentrate extraction pump	0 0GDK40 AP011/021/031	Centrifugal Pump: CPK C 80-200	Serial: 9971629865/100/1
RO / UF CIP pump, CEDI CIP pump & RO Concentrate extraction pump	0 0GDK41 AP011/021/031	Centrifugal Pump: CPK C 80-200	Serial : 9971629865/100/1
RO / UF CIP pump, CEDI CIP pump & RO Concentrate extraction pump	0 0GDK65 AP041/051/031	Centrifugal Pump: CPK C 80-200	Serial : 9971629865/100/1
Potable water pump	0 0GDK36 AP001/011	Centrifugal Pump: KWP K 125-315	Serial : 9971629860/200/1

GTM vacuum pump	0 0GDK46 AP011/021/031/041	LPHX 65327 AB AG1 4B 1 LIQUID RING VACUUM PUMP	Serial : D – 22- 336565 - 01
CAUSTIC TRANSFER PUMPS	0 0GDN20 AP001 /021	CPKC 50- 250	Serial : 9971629887/200/1
CAUSTIC CIP TRANSFER PUMPS	0 0GDN25 AP021/031	CPK C 25-160	Serial : 9973849112
SULPHURIC ACID TRF PUMPS	0 0GDE01 AP001 /021	KWPK 40-250	Serial : 9972948578
AMMONIA TRANSFER PUMPS TO ION EXCHANGE	0 0GDN05 AP001 /011	ETA 32-160	Serial : 9971629878/200/1
RO1 WATER TO POTABLE WATER TANK PUMPS	0 0GDK36 AP001 /011	KWPK 125-315	Serial : 9971629880/200/2
BRINE TO CIP CEDI TANK	0 0GDN65 AP031 /AP041	CPK-C 25- 160 (C)	
Low conductivity sump pump	0 0LDR 11/12 AP001	PL200 PN10100276	
DILUTED H2SO4 TRANSFER	0 0GDE06 AP001 / AP011	CPK-C 25- 160 (C)	
Centrifugal pump	1-6 0 SGA 59/60 AP001/002/003	7 stage ,17m3/h 2919rpm self-priming	

Main PUMP (Diesel engine driven)	0 0SGA20/21 AP001	SPP, horizontal split casing, 205 litres/sec, Centrifugal Pump	
Main Fire PUMP (Electrical motor driven)	0 0SGA23/24 AP001	SPP, horizontal split casing, 205 litres/sec, Centrifugal Pump	
Low Pressure Centrifugal Pump	0 0SGA02/3/4 AP001	Centrifugal Pump (model APP 31-125) comprising of impeller, shaft, seals, gaskets and bearings	Serial : 100090771
High Pressure Head Tank Centrifugal Pump	0 0SGA33/34/35 AP001	Centrifugal Pump (model APP 32-80) comprising of impeller, shaft, seals, gaskets and bearings	Serial :10090926
Bulk fuel Oil PUMP FOAM PU	SGF88 AP001	TYPE FD6000/3-PP-S, P/N FD6000-09S1-02-090; APPROVAL FM 3029243, VDs Approval no G4080017, FLOW RATE 500-6000L/MIN, Maximum pressure 16BAR SERIAL NO 01050634	Serial :N 01050634
SEWAGE TREATMENT PLANT SCREENED SEWAGE PUMP 1/2	00GQB10AP001/2 KP01	non-clogging Centrifugal Pump. KWP-F 100-250	
SEWAGE TREATMENT PLANT SUPERNATANT SUMP	00GQB20AP001/2	Submersible Centrifugal Pump. MODEL NO: CP3045.181HT(252) 18 m3/h, 35 m head.	

SUBMERSIBLE PUMP 1/2			
SEWAGE TREATMENT PLANT SUPERNATANT SUMP PUMP 1&2	00GQB20 AP001	Submersible flygt pump, CP 3045.181 HT252-1.2 kW	
SEWAGE TREATMENT PLANT SIDE STREAM FILTRATION PUMP 1/2 PUMP	00GTA50AP001/2KP01	CAPACITY: 130 M3/HR; TOTAL HEAD: 12 M; SIZE: 100 X 200 MM; SPEED: 1450 RPM; STAGE: 1; DRIVER: MOTOR 7.5 KW SPECIFICATION: ETA 100-200	SUPPL P/N: 9973002416
Open Circuit Common	1-6 0PCC11-13 AP001	Centrifugal Pump, : OMEGA 350-360 (J);	Serial : 9972016937/200/2
Open Circuit Unitised	0 1/2PCC10-13 AP001	Centrifugal Pump, : ETA-B 200-33 (J);	Serial : 9971696847/100/2
Closed Circuit Common	0 1/2PGC10-13 AP001	Centrifugal Pump, : ETA 200-40 (J);	Serial : 9972016937/100/4
Closed Circuit Unitised	1-6 0PGC10-12 AP001	Centrifugal Pump,: OEGA 300-435 (J);	Serial : 9971697214/100/3
Closed Circuit Make up	0 0GBK20-23 AP001	Centrifugal Pump: ETA 125-400 (J);	Serial : 9972108486/100/4
CDD Centrifugal Pump	0 0GMG10/12/14 AP001	APP 33-125, 40m head, 50 L/s, 1470rpm Centrifugal	
FAC Centrifugal Pump	00 GME81/82/83 AP001	APP 22-80, 60m head, 50L/s,	

BAMR Centrifugal Pump	0 0GME12/13/14/15 AP001	APP 42-150, 32.7m head, 97.5L/s	
ADM Centrifugal Pump	0 0GME34/36 AP001	APP 33-100, 46.5m head, 37L/s, Centrifugal Pumps	
CSY Recovery Centrifugal Pump	0 0GME72/74 AP001	, 30.5m head, 25L/s, Centrifugal Pumps	
CAB Centrifugal Pump	0 0GME51/52/53 AP001	HP 22-32, 73m head, 6.375L/s	
CDD Temporary Pumps	0 0GMG 10	90 Kw :HT 234;282 MM;2960/MT3~241	
CDD Temporary pumps	0 0GMG10	BS 2400 MT 3~ 231	

Potable Water distribution	0 0GKA21/22/23 AP001	APP 22-50 , 72m Head, 10 L/s	
Booster Pump	6 0LDK11/12/13 AP001	CPK-C 250-400	
Ammonia rinse recycle pumps	0 0LDN51/52 AP001	MAC-C1 50-160/110-20	
Caustic reclaim pumps	0 0LDN42/41 AP001	MAC-C1 65-200/110-40	
Re-USE resin transfer pumps	0 0LDP51/52 AP001	CPKC 80-250	
Caustic injection pumps	0 0LDN11/12 AP001	PKG144M100H3/9.C5.HH3.Z	
Sulphuric injection pumps	0 0LDN22/23 AP001	PL96P115H3/9.C5.HH3	
Acid reclaimed	0 0LDN31/32 AP001	80-50-125	
Demin Regen resin Transfer	0 0LDP71/72 AP001	CPK-C 100-250;88m3/hr; 60M	
Chiller PUMP	05QKF50 AP001/002 ;01QKE10/40 AP001	DPL80/145-5.5/2 , 5.5 KW ,50Hz,2900RPM, PN10, DN80	Serial :2052685/1009
Chiller PUMP	03QKE10/40 AP001;6-1 2QKE10/20AP001	DPL50/150-4/2 N218B, pn10 , 4KW	6-1 2QKE10/20AP001
Chiller PUMP	01QKF 10/40 AP001	DPL65/140-4/2 N203B	Serial: 2089664/1012
Chiller PUMP	04QKE10/40 AP001	PUMP BAC 40-136-1.1/2 N41	
Process Drain Sump Pump	0 0GMM31/32/33 AP001	PUMP:X218R2C5-P35ZJ5;PROCESS DRAIN SUMP	

Draught Group	1-6 0HNC10/20 AP001KP01	Order no 089-4501891790, Type PGE101-125-RQB1-N-3700	
Ash Handling System	0 0ETN 92/93 AP001	PUMP, CENTRIFUGAL: NPSH: 2.5 M; CAPACITY: 60 M3/HR; TOTAL HEAD: 10.7 M; SIZE: IMPELLER DIAMETER 250 4 VANES; SPEED: 2246 RPM; STAGE: 1; DRIVER: V-BELT MOTOR 18.5KW; IEC 180MM; 4 POLE; 400V; 50HZ; TYPE: HM75 EHC-S C4	
Draught Group	1-6 0HNC12/22 AP001KP01 1-6HNC12/22 AP002KP01	Type Double Gear pump, Housing Gray Cast Iron, Nominal size 62, flow rate 88.1 l/min speed 1450.1 serial number 23794/1/-2 23795/1/-2 Type KP 2/62 S10ZYWH 4DL1	
TCT Start up drain pump		Vertical Multi-stage pump	
TCT Normal drain pump 1& 2	10-60LCM41 AP001/10-60LCM42 AP001	Vertical Multi-stage pump	
ACC Wash Pumps		MS 40 -Delivery capacity:166 l/min, pressure: 9,5 bar, motor rating: 9,6 kW, current supply: with 5m cable and 2,8-Amps plug, corrosion-protection: frame, tank, piping hot-dip galvanised pump, motor, gear coated	
ACC Wash Pumps		Delivery capacity: 166 l/min, pressure: 80 bar, motor rating: 30 kW, current supply: with 5m cable and 63-Amps plug, corrosion-protection: frame, tank, piping hot-dip galvanised pump, motor, gear coated	