NEC3 Supply Contract (SC3)

Between **ESKOM HOLDINGS SOC Ltd**
(Reg No. 2002/015527/30)

and
(Reg No. _____)

for **SUPPLY & DELIVERY OF AUXILIARY COOLING SPARES AT MEDUPI POWER STATION FOR 60 MONTHS**

Contents: **No of pages**

CONTRACT No.

PART C1: AGREEMENTS & CONTRACT DATA

Contents:		No of pages
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C1.1 Form of Offer & Acceptance

Offer

The Purchaser, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

Supply and Delivery of Auxiliary Cooling Spares at Medupi Power Station for 60 Months

The tenderer, identified in the Offer signature block, has

either	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
or	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Supplier* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

	The offered total of the Prices exclusive of VAT is	**R**
	Value Added Tax @ 15% is	**R**
	The offered total of the amount due inclusive of VAT is[1]	**R**
	(in words)	

This Offer may be accepted by the Purchaser by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Supplier* in the *conditions of contract* identified in the Contract Data.

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness .....

Date .....

[1] This total is required by the *Purchaser* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*.

Acceptance

By signing this part of this Form of Offer and Acceptance, the Purchaser identified below accepts the tenderer's Offer. In consideration thereof, the Purchaser shall pay the Supplier the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Purchaser and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Goods Information including Supply Requirements

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Purchaser during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Purchaser's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s) .....

Name(s) .....

Capacity General Manager
Medupi Generation Division

for the Purchaser Eskom Holdings SOC Limited
Medupi Power Station
Private Bag x9003
LEPHALALE
Limpopo
0555

(Insert name and address of organisation)

Name & signature of witness .....

Date .....

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations to be completed by the *Purchaser* prior to contract award

Note:

1. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Purchaser prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1	**[●]**	**[●]**
2	**[●]**	**[●]**
3	**[●]**	**[●]**
4	**[●]**	**[●]**
5	**[●]**	**[●]**
6	**[●]**	**[●]**
7	**[●]**	**[●]**

By the duly authorised representatives signing this Schedule of Deviations below, the Purchaser and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Purchaser during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	**For the Purchaser**
Signature		
Name		
Capacity		General Manager: Medupi Generation Division
On behalf of	*(Insert name and address of organisation)*	Eskom Holdings SOC Limited Medupi Power Station Private Bag x9003 LEPHALALE Limpopo 0555
Name & signature of witness		Manager: Procurement
Date		

C1.2 SC3 Contract Data

Part one - Data provided by the *Purchaser*

Completion of this data in full, according to the Options chosen, is essential to create a complete contract.

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for Options	
		X1: Price adjustment for inflation
		X2 Changes in the law
		X3: Multiple currencies
		X7: Delay damages
		Z: *Additional conditions of contract*
	of the NEC3 Supply Contract (April 2013) [2]	(If the December 2009 edition is to be used delete April 2013 and replace by December 2013)
10.1	The *Purchaser* is (name):	**Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa**
	Address	**Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg**
	Tel No.	**011 800 8111**
10.1	The *Supply Manager* is (name):	
	Address	**Medupi Power Station**
	Tel	
	e-mail	
11.2(13)	The *goods* are	**Fire Protection System Spares**
11.2(14)	The following matters will be included in the Risk Register	• **Force Majeure** • **Climate change** • **Labour strike and Community Unrest** • **Lead time of material** • **Poor quality of material** • **Wrong material delivered** • **Early warning will be used by both Parties for new risks**
11.2(15)	The Goods Information is in	**Part 3: Scope of Work and all documents and drawings to which it makes reference.**

[2] Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902, www.ecs.co.za.

11.2(15)	The Supply Requirements as part of the Goods Information is in	**Annexure A to this Contract Data**		
12.2	The *law of the contract* is the law of	**the Republic of South Africa**		
13.1	The *language of this contract* is	**English**		
13.3	The *period for reply* is	**Five working days**		
	The *Supplier's* main responsibilities	**Data required by this section of the core clauses is provided by the *Supplier* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.**		
	Time			
30.1	The *starting date* is.	**TBC**		
30.1	The *delivery date* of the *goods* and *service*s is:	***goods and services***		***delivery date***
		1	**Supply and delivery of Auxiliary Cooling Spares Spares**	**To be agreed as per order**
30.2	The *Supplier* does not bring the *goods* to the Delivery Place more than one week before the Delivery Date.	**To be agreed by both Parties**		
31.1	The *Supplier* is to submit a first programme for acceptance within	**period agreed by both Parties**		
32.2	The *Supplier* submits revised programmes at intervals no longer than	**three working days**		
	Testing and defects			
42	The *defects date* is	**Fifty-two weeks after Delivery.**		
43.2	The *defect correction period* is	**Four weeks**		
42.2	The *defects access period* is	**Seven days**		
	Payment			
50.1	The *assessment interval* is	**between the 25th day of each successive month or Continuous assessment upon safe delivery and having met all the required standard and signed off**		
51.1	The *currency of this contract* is the	**South African Rand**		
51.2	The period within which payments are made is	**30 calendar days after reception of a valid tax invoice for contracts valued below R50 000 0000.00 (Fifty Million Rands) excluding VAT. 60 calendar days after reception of a valid tax invoice for contracts valued R50 000 0000.00 (Fifty Million Rands) excluding VAT and above**		
51.4	The *interest rate* is	**the publicly quoted prime rate of interest (calculated on a 365-day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any**		

		dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands.
	Compensation events	**As per NEC3 TSC Core clause 6**
	Title	**As per NEC3 TSC Core clause 7**
	Risks, liabilities, indemnities and insurance	
80.1	These are additional *Purchaser's* risks	**1. Obsolete *goods*** **2. Preservation** **3. Change in works information**
88.1	The *Supplier's* liability to the *Purchaser* for indirect or consequential loss, including loss of profit, revenue and goodwill is limited to	**R0.0 (zero Rand)**
88.2	For any one event, the *Supplier's* liability to the *Purchaser* for loss of or damage to the *Purchaser's* property is limited to	**(1) for the *Purchaser's* existing and surrounding property in the care, custody and control of the *Supplier* the amount of the deductible (first amount payable) relevant to the event** **and** **(2) for all other existing *Purchaser's* property the applicable deductible as at contract date**
88.3	The *Supplier's* liability for Defects due to his design which are not notified before the last *defects date* is limited to:	**The total price of the design, manufacturing and delivery**
88.4	The *Supplier's* total liability to the *Purchaser*, for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	**The Purchase order**
88.5	The *end of liability date* is	**One years after Delivery of the whole of the *goods* and *service*s.**
	Termination and dispute resolution	
94.1	The *Adjudicator* is	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).**
	Address	**1st Floor, Maisels Chamber, 4 Protea Place, Sandton**
	Tel No.	**011 320 0600**

	Fax No.	**011 320 0533**
	e-mail	**info@arbitration.co.za**
94.2(3)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA, a Division of the South African Institution of Civil Engineering, or its successor body (See www.ice-sa.org.za)**
94.4(2)	The *tribunal* is:	**arbitration**
94.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
94.4(5)	The place where arbitration is to be held is	**South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

Data for Option clauses

X1 Price adjustment for inflation

X1.1 The *base date* for indices is: **the month before the month in which the enquiry closed. Rates are fixed and firm for first twelve months after contract signed date. There after CPA escalation will apply annually.**

The proportions used to calculate the Price Adjustment Factor are:

proportion	linked to index for	Index prepared by
0.	[●]	[●]
0.	[●]	[●]
0.	[●]	[●]
0.	[●]	[●]
0.	[●]	[●]
0.15	non-adjustable	
1.00		

X2 Changes in the law

X2.1 A change in the law of: **Republic of South Africa is a compensation event if it occurs after the Contract Date**

X3 Multiple currencies

X3.1 The *Purchaser* will pay for these items in the currencies stated

Items	Other currency	Total maximum payment in the currency
[●]		

		[●]	
		[●]	
X3.1	The *exchange rates* are those published in	**[●] on [●] (date)** **The items will be paid in the other currency** **- to a foreign Bank account nominated by the *Supplier*** **- to a valid SARB approved CFC account in South Africa** **- in accordance with an alternative payment method agreed with the *Purchaser* before the Contract Date.** **(select one of the three methods as agreed with the successful tenderer prior to contract award and delete the others and this note)**	
X7	**Delay damages**		
X7.1	Delay damages for Delivery are	**Delivery of**	**amount per day**
		Spare(s) as per the purchase order Delivery Date	**2% of the spare(s) item from the Delivery Date for each day until the earlier of Delivery**
Z	**The *additional conditions of contract* are**	**Z1 to Z15 always apply for Eskom**	

Z1 Cession delegation and assignment

Z1.1 The *Supplier* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Purchaser.*

Z1.2 Notwithstanding the above, the *Purchaser* may on written notice to the *Supplier* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

Z2.1 If the *Supplier* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Purchaser* for the performance of this contract.

Z2.2 Unless already notified to the *Purchaser*, the persons or organisations notify the *Supply Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Supplier* on their behalf.

Z2.3 The *Supplier* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Purchaser* having been given to the *Supplier* in writing.

Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status

Z3.1 Where a change in the *Supplier's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Supplier*'s B-BBEE status, the

Supplier notifies the *Purchaser* within seven days of the change.

Z3.2 The *Supplier* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Supply Manager* within thirty days of the notification or as otherwise instructed by the *Supply Manager*.

Z3.3 Where, as a result, the *Supplier's* B-BBEE status has decreased since the Contract Date the *Purchaser* may either re-negotiate this contract or alternatively, terminate the *Supplier*'s obligation to Provide the Goods and Services.

Z3.4 Failure by the *Supplier* to notify the *Purchaser* of a change in its B-BBEE status may constitute a reason for termination. If the *Purchaser* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

Z4.1 The *Supplier* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Supplier*, enters the public domain or to information which was already in the possession of the *Supplier* at the time of disclosure (evidenced by written records in existence at that time). Should the *Supplier* disclose information to Others in terms of clause 23.1, the *Supplier* ensures that the provisions of this clause are complied with by the recipient.

Z4.2 If the *Supplier* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Supply Manager*.

Z4.3 In the event that the *Supplier* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Supplier*, to the extent permitted by law prior to disclosure, notifies the *Purchaser* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Supplier* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *goods* or any portion thereof, in the course of Providing the Goods and Services and after Delivery, requires the prior written consent of the *Supply Manager*. All rights in and to all such images vests exclusively in the *Purchaser*.

Z4.5 The *Supplier* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Supply Manager* or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z6 Health, safety and the environment: Add to core clause 25.4

Z6.1 The *Supplier* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the provision of the *goods* and execution of the *services*.

Without limitation the *Supplier*:

- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of supply and
- undertakes, in and about the execution of the supply, to comply with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Supplier's* direction and control, likewise observe and comply with the foregoing.

Z6.2 The *Supplier*, in and about the execution of the supply, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Supplier's* direction and control, likewise observe and comply with the foregoing.

Z7 Provision of a Tax Invoice and interest. Add to core clause 51

Z7.1 Within one week of receiving a payment certificate from the *Supply Manager* in terms of core clause 51.1, the *Supplier* provides the *Purchaser* with a tax invoice in accordance with the *Purchaser*'s procedures stated in the Goods Information, showing the amount due for payment equal to that stated in the payment certificate.

Z7.2 If the *Supplier* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Purchaser* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Purchaser* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Supplier* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Purchaser*'s VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

Z8.1 Delete from the last sentence in core clause 61.3 the words, "unless the event arises from the *Supply Manager* giving an instruction, changing an earlier decision or correcting an assumption".

Z9 *Purchaser's* limitation of liability

Z9.1 The *Purchaser's* liability to the *Supplier* for the *Supplier's* indirect or consequential loss is limited to R0.00 (zero Rand)

Z9.2 The *Supplier*'s entitlement under the indemnity in 83.1 is provided for in 60.1(12) and the *Purchaser*'s liability under the indemnity is limited.

Z10 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

Z10.1 or had a business rescue order granted against it.

Z11 Addition to secondary Option X7 Delay damages (if applicable in this contract)

Z11.1 If the amount due for the *Supplier*'s payment of delay damages reaches the limits stated in this

Contract Data for Option X7, the *Purchaser* may terminate the *Supplier*'s obligation to Provide the Goods and Services using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table.

Z12 Ethics

For the purposes of this Z-clause, the following definitions apply:

Affected Party means, as the context requires, any party, irrespective of whether it is the *Supplier* or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,

Collusive Action means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,

Committing Party means, as the context requires, the *Supplier*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

Prohibited Action means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z12.2 The *Purchaser* may terminate the *Supplier*'s obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Supplier* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Purchaser* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Purchaser* can terminate the *Supplier*'s obligation to Provide the Services for this reason.

Z12.3 If the *Purchaser* terminates the *Supplier*'s obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Purchaser* does not have a contractual bond with the Committing Party, the *Supplier* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z__ 13.1 Replace core clause 84 with the following:

Insurance cover **84**

84.1 When requested by a Party, the other Party provides certificates from

his insurer or broker stating that the insurances required by this contract are in force.

84.2 The *Supplier* provides the insurances stated in the Insurance Table A for events which are at the *Supplier*'s risk from the *starting date* until the last *defects date* or a termination certificate has been issued.

INSURANCE TABLE A

Insurance against	**Minimum amount of cover or minimum limit of indemnity**
Loss of or damage to the *goods*, plant and materials	The replacement cost where not covered by the *Purchaser*'s insurance. The *Purchaser*'s policy deductible as at Contract Date, where covered by the *Purchaser*'s insurance.
Liability for loss of or damage to property (except the *goods*, plant and materials and equipment) and liability for bodily injury to or death of a person (not an employee of the *Supplier*) caused by activity in connection with this contract	**Loss of or damage to property** *Purchaser*'s property The replacement cost where not covered by the *Purchaser*'s insurance. The *Purchaser*'s policy deductible as at Contract Date, where covered by the *Purchaser*'s insurance. Other property The replacement cost **Death of or bodily injury** The amount required by the applicable law.
Liability for death of or bodily injury to employees of the *Supplier* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z_13.2 Replace core clause 87 with the following:

Insurance by the *Purchaser*

87

87.1 The *Purchaser* provides the insurances stated in the Insurance Table B

INSURANCE TABLE B

Insurance against or name of policy	**Minimum amount of cover or minimu of indemnity**
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document

Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 Nuclear Liability

Z14.1 The *Purchaser* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z14.2 The *Purchaser* is solely responsible for and indemnifies the *Supplier* or any other person against any and all liabilities which the *Supplier* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Supplier* or any other person or the presence of the *Supplier* or that person or any property of the *Supplier* or such person at or in the KNPS or on the KNPS site, without the permission of the *Purchaser* or of a person acting on behalf of the *Purchaser*.

Z14.3 Subject to clause Z14.4 below, the *Purchaser* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Supplier* or any other person, or the presence of the *Supplier* or that person or any property of the *Supplier* or such person at or in the KNPS or on the KNPS site, without the permission of the *Purchaser* or of a person acting on behalf of the *Purchaser*.

Z14.4 The *Purchaser* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

For the purposes of this Z-clause, the following definitions apply:

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

AL means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.

Ambient Air means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.

Compliance Monitoring means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

OEL means occupational exposure limit.

Parallel Measurements means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.

Safe Levels means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

Standard means the *Purchaser*'s Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.

SANAS means the South African National Accreditation System.

TWA means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z15.1 The *Purchaser* ensures that the Ambient Air in the area where the *Supplier* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

Z15.2 Upon written request by the *Supplier*, the *Purchaser* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Supplier* may perform Parallel Measurements and related control measures at the *Supplier*'s expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z15.3 The *Purchaser* manages asbestos and ACM according to the Standard.

Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z15.5 The *Supplier*'s personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

Z15.6 The *Supplier* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations.

Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Purchaser* at the *Purchaser*'s expense, and conducted in line with South African legislation.

Annexure A: Supply Requirements

The Supply Requirements for this contract are as follows:

1. The requirements for the supply are	The *Supplier* supply and deliver of *goods* at Medupi Power Station Main stores	
2. The requirements for transport are	The *goods* will be transported on the road	
3. The delivery place is	The delivery location is Medupi Power Station Stores	
4. Actions of the Parties during supply	**Action**	**Party which does it**
	Giving notice of Delivery	*Supplier*
	Checking packing and marking before dispatch	*Supplier*
	Contracting for transport	*Supplier*
	Pay costs of transport	*Supplier*
	Arrange access to delivery place	*Purchaser*
	Loading the *goods*	*Supplier*
	Unloading the *goods*	*Purchaser*
For international procurement	Undertake export requirements	
	Undertake import requirements	
5. Information to be provided by the *Supplier*	**Title of document**	
	Packing lists for cases and their contents	
	Copy of invoice for the *goods*	
	Delivery Note	
	Test results and maintenance manuals	
For international procurement	Licences, authorisations and other formalities associated with export of the *goods*	
	Air Waybill or Bill of Lading with associated landing, delivery and forwarding order	
	The Bill of Entry endorsed by the importation authority	
	Customs work sheets, showing tax, duties and surcharges which the law of the country into which the *goods* are being imported requires the importer to pay	
	Invoice from the importation clearing agent showing airline fees, landing charges, wharfage and dock dues as applicable	
	Specify other import documents required by authorised officials.	

All other information NOT pertinent to the above is given in the balance of the Goods Information

C1.2 Contract Data

Part two - Data provided by the *Supplier*

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The *Supplier* is (Name): Address Tel No. Fax No.	
11.2(8)	The Goods Information for the *Supplier's* design is in:	
11.2(11)	The tendered total of the Prices is	**R** **(in words)**
11.2(12)	The *price schedule* is in:	
11.2(14)	The following matters will be included in the Risk Register	
25.2	The restrictions to access for the *Supply Manager* and Others to work being done for this contract are	
30.1	The *delivery date* of the *goods* and *service*s is:	***goods and services*** / ***delivery date*** **1** **2** **3**
31.1	The programme identified in the Contract Data is contained in:	
63.2	The *percentage for overheads and profit* added to the Defined Cost is	**%**

Part 2: Pricing Data
NEC3 Supply Contract

Document reference	Title	No of pages
C2.1	Pricing assumptions	2
C2.2	The *price schedule*	

C2.1 Pricing assumptions

1. How *goods* and *service*s are priced and assessed for payment

Clause 11 in NEC3 Supply Contract, (SC3) core clauses states:

Identified and defined terms	11 11.2	(11) The Prices are the amounts stated in the price column of the Price Schedule. Where a quantity is stated for an item in the Price Schedule, the Price is calculated by multiplying the quantity by the rate. (12) The Price Schedule is the *price schedule* unless later changed in accordance with this contract.
Assessing the amount due	50.2	The amount due is • the Price for each lump sum item in the Price Schedule which the *Supplier* has completed, • where a quantity is stated for an item in the Price Schedule, an amount calculated by multiplying the quantity which the *Supplier* has completed by the rate, • plus other amounts to be paid to the *Supplier*, • less amounts to be paid by or retained from the *Supplier*. Any tax which the law requires the *Purchaser* to pay to the *Supplier* is included in the amount due.

This confirms that the Supply Contract is a priced contract where the Prices are derived from a list of items of *goods* and *service*s which can be priced as lump sums or as expected quantities of *goods* and *service*s multiplied by a rate, or a mix of both.

2. Function of the Price Schedule

Clause 53.1 states: “Information in the Price Schedule is not Goods Information”. This confirms that instructions to do work or how it is to be done are not included in the Price Schedule but in the Goods Information. This is further confirmed by Clause 20.1 which states, “The *Supplier* Provides the Goods and Services in accordance with the Goods Information”. Hence the *Supplier* does **not** Provide the Goods and Services in accordance with the Price Schedule. The Price Schedule is only a pricing document.

3. Preparing the *price schedule*

Items in the *price schedule* may have been inserted by the *Purchaser* and the tendering supplier should insert any additional items which he considers necessary. Whichever party provides the items in the *price schedule* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Goods and Services as described at the time of entering into this contract.

It will be assumed that the tendering supplier has

- Read Pages 8, 11, 12 and Appendix 5 of the SC3 Guidance Notes before preparing the *price schedule;*
- Included in his Prices and rates for correction of Defects (core clause 43.1) as there is no compensation event for this unless the Defect is due to a *Supplier’s* risk;
- Spread the cost of doing work he chooses not to list as separate items in the *price schedule*

across other Prices and rates in order to fulfil the obligation to Provide the Goods and Services for the tendered total of the Prices;
- Understood that there is no adjustment to lump sum prices in the *price schedule* if the amount, or quantity, of work within that lump sum item later turns out to be different to that which the *Supplier* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event per clause 60.1;
- Understood that the *Supplier* does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event.

3.1. Format of the *price schedule*

Entries in the first four columns in the *price schedule* in section C2.2 are made either by the *Purchaser* or the tendering supplier.

If the *Supplier* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tendering supplier enters the amount in the Price column only, the Unit, Quantity and Rate columns being left blank.

If the *Supplier* is to be paid an amount for the item which is the rate for the item multiplied by the quantity completed, the tendering *Supplier* enters the rate which is then multiplied by the Quantity to produce the Price, which is also entered.

If the *Supplier* is to be paid an amount for an item proportional to the length of time for which the *goods* and *service*s are provided, a unit of time is stated in the Unit column and the length of time (as a quantity of the stated units of time) is stated in the Quantity column.

C2.2 the *price schedule*

Item nr	Description	Unit	Price
1	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – fan blades	Each	
2	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan - Lower clamps	Each	
3	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan - Upper clamps	Each	
4	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – U-bolt including washer & nut	Each	
5	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – coupling flange	Each	
6	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – fan hub	Each	
7	Howden, type 30 ENF 8 Fan Assembly comprising all components	Each	
8	BREATHER: TYPE: FAN GEARBOX; DIMENSIONS: DIA 114 X LG 115 MM; MATERIAL: PLASTIC; CONNECTION: NPT 1 IN; APPLICATION: AUXILIARY COOLING; 30ENF8; WITH TRAP BREATHER TECHNOLOGY; CONNECTION SECTION LENGTH: 35MM; FILTER SECTION LENGTH: 80MM; MAXIMUM AIRFLOW:1274 L/MIN; PART NO: P56-6151;	Each	
9	AMARILLO CF83 800X composite drive shaft, 4280 mm long	Each	
10	MOTOR, ELECTRIC: POWER: 160 KW; POTENTIAL: 400-690 V; CURRENT: 278/161 A; SPEED: 1490 RPM; FRAME: 315S/M; MOUNTING: IMB3; PHASE: 3; POLES: 4; ENCLOSURE RATING: IP66; SHAFT SIZE: 85 MM; INSULATION CLASS: H; CONNECTION LOCATION: TOP; SERVICE FACTOR: 1; TEMPERATURE CLASS: 80K; DIRECTION: BI-DIRECTIONAL; TYPE: INDUCTION; PREMIUM EFFICIENCY PLUS-MULTI VOLTAGE MOTOR; MUST BE TRANSPORTED ACCORDING ADHERENCE TO THE ESKOM STANDARD; NAMELY THE TRANSPORT OF POWER STATION ELECTRIC MOTORS STANDARD (DOCUMENT NUMBER: 240-56361435) IS ENSURED; DRIVE-END BEARING: NU-319-C3; NON-DRIVE-END BEARING: 6316-C3;	Each	
11	SWITCH, LEVEL: RANGE: 10-90 DEG C; POTENTIAL: 230 VAC; CURRENT: 1 A; ACTION: SPDT; METHOD OF ACTUATION: FLOAT;	Each	

	APPLICATION: COOLING TOWER GEARBOX OIL LEVEL; CONTACT ARRANGEMENT: 1NO 1NC; ENCLOSURE RATING: IP65; CABLE GLAND: PG9; CONNECTION BOX DIMENSIONS: WD 50 X HT 45 X DP 35; PROCESS CONNECTION: G 3/8IN FEMALE; HOUSING MATERIAL: ALUMINIUM; FLOAT: STAINLESS STEEL; TUBE: BRASS; PART NO: 600.003.50, ; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).		
12	SENSOR, VIBRATION: POTENTIAL: 15 TO 30 VDC; FREQUENCY RESPONSE: 10HZ TO 1KHZ +/- 5PCT; OPERATING TEMPERATURE: -25 TO 90 DEG C; OUTPUT: 4-20 MA; ENCLOSURE: IP65; APPLICATION: COOLING TOWER FAN GEARBOX; VELOCITY RANGES: 0-10 TO 0-100MM/S RMS +/- 10PCT; INCLUDE STANDARD BRAIDED CABLE LENGTH; CABLE MATERIAL: ARMOURED ETFE; PART NO: HS-420;	Each	
13	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 900 MM; LENGTH: 620 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 15MM;	Each	
14	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 700 MM; LENGTH: 610 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 15MM; CONNECTION: 700NB; T1000 FF;	Each	
15	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 250 MM; LENGTH: 380 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE	Each	

	ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES) SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM;		
16	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 250 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTON FLOW ONLY: PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; MODEL NO: BPFT; REFERENCE NO: T1600 FF;	Each	
17	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 400 MM; LENGTH: 460 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; 400NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE RODS NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 15MM; 400NB; REFERENCE NO: T1000 FF;	Each	
18	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 400 MM; LENGTH: 546 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 25MM; 400NB; REFERENCE NO: BPFT; REFERENCE NO: T1000 FF;	Each	
19	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 350 MM; LENGTH: 420 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; TIE RODS REQUIRED ALONG	Each	

	WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; 350NB; REFERENCE NO: T1000 FF;		
20	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 350 MM; LENGTH: 450 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; 350NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; BS EN10025-S355; REFERENCE NO: T1000 FF;	Each	
21	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 500 MM; LENGTH: 590 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 20MM; AXIAL COMPRESSION: 20MM; LATERAL MOVEMENT: 30MM; 500NB; REFERENCE NO: T1000 FF;	Each	
22	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 500 MM; LENGTH: 644 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; 500NB; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 20MM; AXIAL COMPRESSION: 20MM; LATERAL MOVEMENT: 30MM; REFERENCE NO: T1000 FF;	Each	
23	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 200 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED	Each	

	WATER; SA 516 GR.70; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200) LINE EXPANSION:15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 5MM; 200NB; REFERENCE NO: T1600 FF;		
24	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 100KPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; 300NB: SA 516 GR.70; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200) LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; REFERENCE NO: T1000 FF;	Each	
25	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; SA 516 GR.70; 300NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 15MM; REFERENCE NO: T1000 FF;	Each	
26	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 400 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; BPFT; BS EN10025-S355; 300NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED: 1 DIRECTION FLOW ONLY: PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 5MM; REFERENCE NO: T1000 FF	Each	
27	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM;LENGTH: 390 MM; CONNECTION: FLANGE; MATERIAL: SS 316;	Each	

	DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; 300NB; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS: 4 X TIE ROD NUTS PER ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM: LATERAL MOVEMENT: 20MM; REFERENCE NO: T1000 FF;		
28	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 440 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT; BS EN10025-S355;	Each	
29	Fenner Fenaflex, F140 Tyre Coupling	Each	
30	Fenner Fenaflex, F100 Tyre Coupling	Each	
31	Fenner fenaflex, F80 Tyre Coupling	Each	
32	Fenner fenaflex, F160 Tyre Coupling	Each	
33	BRG BAL:6411-C3;DEEP GROOVE;DEEP GROOVE	Each	
34	Fenner Fenaflex, F120 Tyre Coupling	Each	
35	Coupling Guard, Tyre Coupling Guard	Each	
36	A Set of heat exchanger plates including gaskets (210 plates including base & loose plate)	Each	
37	A Set of heat exchanger plates including gaskets (430 Plates, including base & loose plates)	Each	
38	FLOW: TYPE: DUAL PULSE INSERTION; CONNECTION: BSPT 50 MM; RANGE: 0.25 TO 6300 LPS; MATERIAL: SS 316; DESIGN RATING: 80 BAR; ENCLOSURE RATING: IP68; MEDIUM: PROCESS WATER; CURRENT: 4-20MA; FLOW VELOCITY RANGE: 0.3 TO 10 M/S; POTENTIAL: SELF GENERATED VOLTAGE;	Each	
39	DETECTOR, RESISTANCE TEMPERATURE: TYPE: PT100; TEMPERATURE RATING: -200 TO 600 DEG C; RESISTANCE: 300; NUMBER OF	Each	

	SENSORS: SINGLE; WIRE: 3; SHEATH MATERIAL: SS 316; PROCESS CONNECTION: BSPP 1/2 IN; HEAD: YES; TOLERANCE: +/-1 DEG C; SHEATH DIAMETER: 7 MM; SHEATH LENGTH: 340 MM; TERMINATION TYPE: NICKEL PLATED BRASS; SCREW TYPE ON CERAMIC BASE; REFERENCE NO: TLSR1-Y8D11H2;		
40	DETECTOR, RESISTANCE TEMPERATURE: TYPE: PT100; TEMPERATURE RATING: -200 TO 600 DEG C; RESISTANCE: 300; NUMBER OF SENSORS: SINGLE; WIRE: 3; SHEATH MATERIAL: SS 316; PROCESS CONNECTION: BSPP 1/2 IN; HEAD: YES; TOLERANCE: +/-1 DEG C; SHEATH DIAMETER: 7 MM; SHEATH LENGTH: 240 MM; TERMINATION TYPE: NICKEL PLATED BRASS; SCREW TYPE ON CERAMIC BASE; PART NO: TLSR1-Y8D11H2;	Each	
41	200 NB, double door, non-return valve	Each	
42	250 NB, double door, non-return valve	Each	
43	300 NB, double door, non-return valve	Each	
44	350 NB, double door, non-return valve	Each	
45	500 NB, double door, non-return valve	Each	
46	VENT: TYPE: AUTOMATIC AIR RELEASE; DIMENSIONS: DIA 75 X HT 187 MM; MATERIAL: SS; APPLICATION: AUX COLLING UNITISED PUMP AUTO VENT; PART NO: AE30SS, ; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	Each	
47	Vent-O-Mat RBX Series auto vent valves	Each	
48	Vent-O-Mat RBX Series auto vent valves	Each	
49	Vent-O-Mat RBX Series auto vent valves	Each	
50	Vent-O-Mat RBX Series auto vent valves	Each	
51	Vent-O-Mat RBX Series auto vent valves	Each	
52	100 NB, hand operated, butterfly valve with Lever.	Each	
53	100 NB, actuator driven, butterfly valve.	Each	
54	150 NB, hand operated, butterfly valve with Lever.	Each	
55	150 NB, actuator driven, butterfly valve.	Each	
56	200 NB, hand operated, butterfly valve with gearbox	Each	
57	200 NB, actuator driven, butterfly valve.	Each	
58	200 NB, hand operated, butterfly valve with gearbox, and an additional extended stem.	Each	
59	250 NB, actuator driven, butterfly valve.	Each	

60	250 NB, hand operated, butterfly valve with gearbox	Each	
61	300 NB, hand operated, butterfly valve with gearbox	Each	
62	350 NB, actuator driven, butterfly valve.	Each	
63	350 NB, hand operated, butterfly valve with gearbox	Each	
64	400 NB, actuator driven, butterfly valve	Each	
65	400 NB, hand operated, butterfly valve with gearbox	Each	
66	450 NB, hand operated, butterfly valve with gearbox	Each	
67	500 NB, actuator driven, butterfly valve	Each	
68	500 NB, hand operated, butterfly valve with gearbox	Each	
69	600 NB, hand operated, butterfly valve with gearbox	Each	
70	700 NB, hand operated, butterfly valve with gearbox	Each	
71	900 NB, hand operated, butterfly valve with gearbox	Each	
72	500 NB Y-type strainer	Each	
73	300 NB Y-type strainer	Each	
74	Spring type, pressure relief valve set at 700 kPa.	Each	
75	350 NB Y-type strainer	Each	
76	50 NB, hand operated, ball valve	Each	
77	15 NB, hand operated, lever type ball valve	Each	
78	Miscellaneous spares not specified in Table above – 10% of the sum of items number 1-77	Sum	
79	Profit allowance for item number 78 above	%	

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	*Purchaser*'s Goods Information	
C3.2	*Supplier*'s Goods Information	
	Total number of pages	

C3.1: *PURCHASER'S* GOODS INFORMATION

Contents

1 Overview and purpose of the *goods* and *service*s

The Auxiliary Cooling Plant at Medupi Power Station follows a maintenance strategy comprised of corrective maintenance, preventive maintenance and predictive maintenance. This scope details the spares required for the completion of maintenance over a five (5) year/60 months period to ensure adequate system performance.

2 Specification and description of the *goods*

The scope of supply for spares is provided in Table below: Auxiliary Cooling Spares List Table, but is not limited to the listed spares.
Piping and other miscellaneous spares and consumables may be required.

2.1 Spares Supply

1. The spares required are listed in the table below as the Auxiliary Cooling Spares List Table. The quantities may be amended as required by the *Purchaser*. This value will be used along with other estimates to determine the contract value. It should be noted that this is just an estimate, and it does not mean that the *Purchaser* will consume the spares in the duration of the contract. These quantities are therefore not fixed, and the *Supplier* will only supply spares when instructed by a purchase order, from the *Purchaser*, to do so.
2. Spares that are not included in the list will be supplied as part of the “Miscellaneous spares not specified” portion.
3. The spares and components will be supplied to the “goods received” section of the Medupi main store where it will be received by the material management section. The spares will be delivered with all of the required data books and certificates, where required
4. A draft QCP shall be submitted (at least 2 weeks prior to starting any work) with defined hold and witness points specified, for review by Engineering prior to manufacturing or procurement.
5. The *Purchaser* shall be given sufficient notice by the *Supplier* of any witness and hold points identified for adherence in the QCP. These points may be waived (in writing) by the *Purchaser* from time to time depending on technical staff availability
6. Only once the spares have passed the Quality Control checks and are booked into the system can payment be affected
7. Hardcopies as well as electronic copies of the manufacturing Data Books shall be supplied to the *Purchaser* with or before the delivery of any spare. This Data Book will be used during on site Quality Control checks to confirm correctness of spare/component delivered.
8. The manufacturing Data Book shall contain as a minimum, but shall not be limited to, approved quality control plan, material certificates, test reports, material catalogue, non-destructive testing reports/certificates.
9. The Spares shall comply shall be as specified. This includes all aspects such as design, materials and material specifications, manufacturing, including manufacturing processes, calibration certificates and acceptance testing. Where spares offered deviate from the original in any respect, it should be indicated to the *Purchaser* upon quotation/query.
10. It is the *Supplier*’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 *Supplier* cost. This includes transport and delivery.
11. The Delivery and transport costs must be included in the quotation.
12. The following packaging requirements should be adhered to:
    a) The *goods* are to be packaged in such a manner that it 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, dust and/or vibrations.
    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 eye bolts are fitted to move the *goods*, these eye bolts should be fitted such a way that they can be easily removed and replaced with the *Purchasers*’ eye bolts, ensuring that the packaging stays intact.

f) Packaging and labelling of the components should ensure that the spare can be identified without opening the packaging.
g) Delivery packaging to have the following detail on it as a minimum (removable adhesive sticker if possible):
   i. Order number,
   ii. A short description of component
   iii. The stock numbers.
   iv. Manufacturing date
h) The documentation for preservation requirements should be delivered with the *goods*.
i) Where lifting may only be conducted from predetermined positions, these positions will be clearly marked and identified.

2.2 Obsolescence

1. All spares shall be supplied in accordance the specifications as detailed.
2. Any components that are deemed to be obsolete shall be replaced with an equivalent spare as recommended by the OEM on condition that:
   - The OEM of the product deems the component obsolete in writing. Local distributors are to obtain written communications with the OEM stating such to be in effect.
   - An equivalent of the component from the OEM for the components detailing any retrofitting that will be required with the new spare.
   - The *Purchaser* must be notified of obsolescence prior to fabrication of any spares where manufacturing is required.
   - Full technical datasheet of the component that supersedes the obsolete part.
3. No equivalent spare shall be accepted if the above bullets are not adhered to.

2.3 Alternatives

1. No technical deviations or alternatives to the technical specifications shall be permitted.
2. In the case of obsolescence, the *Supplier* shall follow 2.2 as stated above.
3. In instances where 2.2 does not apply the *Supplier* shall:
   - Engage the *Purchaser* with the alternative proposal.
   - The proposal shall include the datasheet of the item.
   - Prior to purchase and/ or delivery of the alternative, the deviation shall be approved.
4. Any deviation to the above stated shall not be accepted.

2.4 Fabrication

1. All components that are to be fabricated shall be in accordance with the specifications provided.
2. The *Supplier* shall come to site to do measurements of the items that require fabrication.
3. The *Supplier* shall provide drawings that will be approved by the *Purchaser* prior to the fabrication of any components.
4. The *Supplier* shall provide all testing certificates as required.
5. Any technical deviations shall be addressed as per 2.1 & 2.3 above.

2.5 Miscellaneous spares

1. Miscellaneous spares such as pipes, pipe supports, gaskets, flanges, fasteners, etc, and consumables for cleaning, installation and inspection of the spares shall be supplied along with the spare.

2.6 Warranty

1. All components shall carry a 24-month warrantee from date of delivery.
2. All components shall carry a further 12-month warrantee after installation (which shall not shorten the warranty after delivery), coupling alignment as well as drive vibration reports will be available and used as baseline for spare/component installation.
3. Any specific requirements to enable the 12-month warrantee shall be brought forward by the *Supplier* for agreement during negotiations. If witnessing of installation is required, this will be at the *Supplier*'s own cost.
4. The warranty shall cover, but not be limited to, minor defects identified, for example: shaft oil seal leakages, minor oil leaks, cooling fan, safety guard or breather related issues, etc.

5. Defective spares under warranty shall be replaced within two (2) months by the *Supplier*.

3 Supply Requirements

The Works Information specifies the required spares, quantities of spares to be supplied by the *Supplier*/OEM and conditions for acceptance The spares and quantities to be supplied are stated on the table below.

The following are *supplier's* requirements:

a) 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

Table 1: Auxiliary Cooling Spares List Table

Short Description	Cataloguing Equipment 'Descriptor'	Applicable KKS number/S	Material Item Characteristics (Detail Description with Defining Design Characteristics)	SAP Material number	Equipment Area
Cooling tower fans - complete fan unit blades	BLADE, FAN	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – fan blades	618614	COOLING TOWER EQUIPMENT
Cooling tower fans - complete fan unit Lower clamps	CLAMP	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan - Lower clamps	618639	COOLING TOWER EQUIPMENT
Cooling tower fans - complete fan unit Upper clamps	CLAMP	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan - Upper clamps	618638	COOLING TOWER EQUIPMENT
Cooling tower fans - Complete fan unit U-bolts	BOLT, U	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – U-bolt including washer & nut	618637	COOLING TOWER EQUIPMENT
Cooling tower fans - complete fan unit coupling flange	FLANGE, SPECIAL PURPOSE	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – coupling flange	618617	COOLING TOWER EQUIPMENT
Cooling tower fans - complete fan unit hub	HUB	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8, diameter 9144 mm, 8-blade axial cooling fan – fan hub	618636	COOLING TOWER EQUIPMENT
Cooling tower fans - complete fan Assembly	ASSEMBLY	0 1/2PCD10/20 /30/40 AN001	Howden, type 30 ENF 8 Fan Assembly comprising all components	618613	COOLING TOWER EQUIPMENT

Cooling tower fans - Fan Gearbox breather	BREATHER	0 1/2PCD10/20 /30/40 AT003	BREATHER: TYPE: FAN GEARBOX; DIMENSIONS: DIA 114 X LG 115 MM; MATERIAL: PLASTIC; CONNECTION: NPT 1 IN; APPLICATION: AUXILIARY COOLING; 30ENF8; WITH TRAP BREATHER TECHNOLOGY; CONNECTION SECTION LENGTH: 35MM; FILTER SECTION LENGTH: 80MM; MAXIMUM AIRFLOW:1274 L/MIN; PART NO: P56-6151;	612129	COOLING TOWER EQUIPMENT
Cooling tower fans - Fan Composite drive shaft	SHAFT	0 1/2PCD10/20 /30/40 AN001 MK01	AMARILLO CF83 800X composite drive shaft, 4280 mm long	618635	COOLING TOWER EQUIPMENT
Cooling tower fans - Fan Induction motor	MOTOR, ELECTRIC	0 1/2PCD10/20 /30/40 AN001-M01	MOTOR, ELECTRIC: POWER: 160 KW; POTENTIAL: 400-690 V; CURRENT: 278/161 A; SPEED: 1490 RPM; FRAME: 315S/M; MOUNTING: IMB3; PHASE: 3; POLES: 4; ENCLOSURE RATING: IP66; SHAFT SIZE: 85 MM; INSULATION CLASS: H; CONNECTION LOCATION: TOP; SERVICE FACTOR: 1; TEMPERATURE CLASS: 80K; DIRECTION: BI-DIRECTIONAL; TYPE: INDUCTION; PREMIUM EFFICIENCY PLUS-MULTI VOLTAGE MOTOR; MUST BE TRANSPORTED ACCORDING ADHERENCE TO THE ESKOM STANDARD; NAMELY THE TRANSPORT OF POWER STATION ELECTRIC MOTORS STANDARD (DOCUMENT NUMBER: 240-56361435) IS ENSURED; DRIVE-END BEARING: NU-319-C3; NON-DRIVE-END BEARING: 6316-C3;	599049	COOLING TOWER EQUIPMENT

Cooling tower fans - Fan gearbox Oil Level Switch	SWITCH, LEVEL	0 1/2PCD10/20 /30/40 CL001	SWITCH, LEVEL: RANGE: 10-90 DEG C; POTENTIAL: 230 VAC; CURRENT: 1 A; ACTION: SPDT; METHOD OF ACTUATION: FLOAT; APPLICATION: COOLING TOWER GEARBOX OIL LEVEL; CONTACT ARRANGEMENT: 1NO 1NC; ENCLOSURE RATING: IP65; CABLE GLAND: PG9; CONNECTION BOX DIMENSIONS: WD 50 X HT 45 X DP 35; PROCESS CONNECTION: G 3/8IN FEMALE; HOUSING MATERIAL: ALUMINIUM; FLOAT: STAINLESS STEEL; TUBE: BRASS; PART NO: 600.003.50, ; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	616253	COOLING TOWER EQUIPMENT
Cooling tower fans - Fan gearbox vibration switch	SWITCH	0 1/2PCD10/20 /30/40 CY001	SENSOR, VIBRATION: POTENTIAL: 15 TO 30 VDC; FREQUENCY RESPONSE: 10HZ TO 1KHZ +/-5PCT; OPERATING TEMPERATURE: -25 TO 90 DEG C; OUTPUT: 4-20 MA; ENCLOSURE: IP65; APPLICATION: COOLING TOWER FAN GEARBOX; VELOCITY RANGES: 0-10 TO 0-100MM/S RMS +/-10PCT; INCLUDE STANDARD BRAIDED CABLE LENGTH; CABLE MATERIAL: ARMOURED ETFE; PART NO: HS-420;	611050	COOLING TOWER EQUIPMENT
Open Circuit - Expansion bellow	JOINT, EXPANSION	0 1/2PCB30-33 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 900 MM; LENGTH: 620 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 15MM;	599055	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Open Circuit - Expansion bellow	JOINT, EXPANSION	0 1/2PCB21/23 /24 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 700 MM; LENGTH: 610 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 15MM; CONNECTION: 700NB; T1000 FF;	599056	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open Circuit - Expansion bellow	JOINT, EXPANSION	0 2PCB42-45 MR01;	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 250 MM; LENGTH: 380 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES) SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM;	599057	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open Circuit - Expansion bellow	JOINT, EXPANSION	0 1PCB42-45 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 250 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTON FLOW ONLY: PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE	599058	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

			EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; MODEL NO: BPFT; REFERENCE NO: T1600 FF;		
Open & Closed Circuit - Expansion bellow	JOINT, EXPANSION	4-6 0PCB11-13 MR01; 0 2PGB37 MR01; 4-6 0PGB10-12 MR01; 0 2PGB30 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 400 MM; LENGTH: 460 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; 400NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE RODS NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 15MM; 400NB; REFERENCE NO: T1000 FF;	599059	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open & Closed Circuit - Expansion bellow	JOINT, EXPANSION	1-3 0PCB11-13 MR01; 0 1PGB37 MR01; 1-3 0PGB10-12 MR01; 0 1PGB30 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 400 MM; LENGTH: 546 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 25MM; 400NB; REFERENCE NO: BPFT; REFERENCE NO: T1000 FF;	599060	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Open Circuit - Expansion bellow	JOINT, EXPANSION	4-6 0PCB11-13 MR02; 02PCB46/49/52 MR01; 02PCB47/50/53 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 350 MM; LENGTH: 420 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; 350NB; REFERENCE NO: T1000 FF;	599061	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open & Circuit - Expansion bellow	JOINT, EXPANSION	1-3 0PCB11-13 MR02; 01PCB46/49/52 MR01; 01PCB47/50/53 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 350 MM; LENGTH: 450 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; 350NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 20MM; BS EN10025-S355; REFERENCE NO: T1000 FF;	599116	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Open & Closed Circuit - Expansion bellow	JOINT, EXPANSION	4-6 0PCB21/23/25 MR01; 4-6 0PCB27-29 MR01; 4-6 0PGB15-17 MR01; 4-6 0PGB31-33 MR01; 0 2PCB70 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 500 MM; LENGTH: 590 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; SA 516 GR.70; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 20MM; AXIAL COMPRESSION: 20MM; LATERAL MOVEMENT: 30MM; 500NB; REFERENCE NO: T1000 FF;	599117	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open & Closed Circuit - Expansion bellow	JOINT, EXPANSION	1-3 0PCB21/23/25 MR01; 1-3 0PCB27-29 MR01; 1-3 0PGB15-17 MR01; 1-3 0PGB31-33 MR01; 0 1PCB70 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 500 MM; LENGTH: 644 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: COOLING WATER SYSTEM-PROCESS WATER; 500NB; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 20MM; AXIAL COMPRESSION: 20MM; LATERAL MOVEMENT: 30MM; REFERENCE NO: T1000 FF;	599118	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Open & Closed Circuit - Expansion bellow	JOINT, EXPANSION	0 1/2PCB42-45 MR02; 0 1/2PGB10-13 MR02	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 200 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; SA 516 GR.70; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200) LINE EXPANSION:15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 5MM; 200NB; REFERENCE NO: T1600 FF;	599119	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Closed Circuit - Expansion bellow	JOINT, EXPANSION	0 2PGB31/33/35 MR01; 0 2PGB32/34/36 MR01; 0 2PGB10-13 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 100KPA AT 60DEG C; SPECIFICATION: SANS1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; 300NB: SA 516 GR.70; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200) LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; REFERENCE NO: T1000 FF;	599120	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Closed Circuit - Expansion bellow	JOINT, EXPANSION	4-6 0PGB10-12 MR02	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 370 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; SA 516 GR.70; 300NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT: 15MM; REFERENCE NO: T1000 FF;	599121	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Closed Circuit - Expansion bellow	JOINT, EXPANSION	0 1PGB10-13 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 400 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; BPFT; BS EN10025-S355; 300NB; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED: 1 DIRECTION FLOW ONLY: PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM; LATERAL MOVEMENT: 5MM; REFERENCE NO: T1000 FF	599122	OPEN & CLOSED CIRCUIT EXPANSION JOINTS

Closed Circuit - Expansion bellow	JOINT, EXPANSION	0 1PGB31/33/35 MR01; 0 1PGB32/34/36 MR01	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM;LENGTH: 390 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; 300NB; BS EN10025-S355; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT; 2 X TIE RODS: 4 X TIE ROD NUTS PER ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 15MM; AXIAL COMPRESSION: 15MM: LATERAL MOVEMENT: 20MM; REFERENCE NO: T1000 FF;	599123	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Closed Circuit - Expansion bellow	JOINT, EXPANSION	1-3 0PGB10-12 MR02	JOINT, EXPANSION: TYPE: FLANGE CONVOLUTED; SIZE: 300 MM; LENGTH: 440 MM; CONNECTION: FLANGE; MATERIAL: SS 316; DESIGN RATING: 1MPA AT 60DEG C; SPECIFICATION: SANS 1123; APPLICATION: PROCESS WATER-DEMINERALISED INHIBITED WATER; TIE RODS REQUIRED ALONG WITH EXPANSION JOINT: 2 X TIE RODS; 4 X TIE ROD NUTS PER TIE ROD-MATERIAL: HOT DIP GALVANISED; 1 DIRECTION FLOW ONLY; PAINTING SPECIFICATION (FLANGES): SSZ 45-17 (DCS 200); LINE EXPANSION: 25MM; AXIAL COMPRESSION: 25MM; LATERAL MOVEMENT; BS EN10025-S355;	599124	OPEN & CLOSED CIRCUIT EXPANSION JOINTS
Open Circuit - Unitised & Common Tyre coupling for pump	COUPLING, SHAFT FLEXIBLE	1-6 0PCC11-13 AP001-MK01; 0 1/2PCC10-13 AP001-MK01;	Fenner Fenaflex, F140 Tyre Coupling	618644	PUMPS, MOTORS & COUPLINGS
Closed Circuit Common - Tyre coupling for pump	COUPLING, SHAFT FLEXIBLE	0 1/2PGC10-13 AP001-MK01	Fenner Fenaflex, F100 Tyre Coupling	618645	PUMPS, MOTORS & COUPLINGS
Open Circuit make-up - Tyre coupling for pump	COUPLING, SHAFT FLEXIBLE	0 0GBK20-23 AP001-MK01	Fenner fenaflex, F80 Tyre Coupling	618645	PUMPS, MOTORS & COUPLINGS
Closed Circuit	COUPLING,	1-6 0PGC10-	Fenner fenaflex, F160 Tyre	618646	PUMPS,

Unitised - Tyre coupling for pump	SHAFT FLEXIBLE	12 AP001-MK01	Coupling		MOTORS & COUPLINGS
Open and Closed Circuit - Ball Bearing	BEARING, BALL	0 1-2PGC10-13 AP001 0 1-2PCC10-13 AP001	BRG BAL:6411-C3;DEEP GROOVE;DEEP GROOVE	675444	PUMPS, MOTORS & COUPLINGS
Open and Closed Circuit - Ball Bearing	BEARING, BALL	1-6_0PG_CC10-13 AP001	BRG BAL:6315-2z;DEEP GROOVE RADIAL	675445	PUMPS, MOTORS & COUPLINGS
Open and Closed Circuit - Ball Bearing	BEARING, BALL	10- 60 PGC10-12 AP001 10-60 PCC11-13 AP001	BRG BAL:6315ZZC3;DOUBLE SEAL;ID 75 MM	256673	PUMPS, MOTORS & COUPLINGS
Closed Circuit Common - Tyre coupling for pump	COUPLING, SHAFT FLEXIBLE	0 1/2PGC10-13 AP001-MK01	Fenner Fenaflex, F120 Tyre Coupling	239262	PUMPS, MOTORS & COUPLINGS
Open Circuit Coupling Guard for common pump	COUPLING GUARD		Coupling Guard, Tyre Coupling Guard	729632	PUMPS, MOTORS & COUPLINGS
Set of gaskets for Heat Exchanger	GASKET SET	0 1/2PGB09 AC001-003	A Set of Plate Heat Exchanger gaskets	627250	HEAT EXCHANGER SPARES
Set of gaskets for Heat Exchanger	GASKET SET	1-6 0PGB09 AC001-003	A Set of Plate Heat Exchanger gaskets	627249	HEAT EXCHANGER SPARES
Open & Closed Circuit – Set of gaskets for heat exchanger	SET	0 1/2PGB09 AC001-003	A Set of heat exchanger plates including gaskets (210 plates including base & loose plate)	618616	HEAT EXCHANGER SPARES
Open & Closed Circuit – Set of gaskets for heat exchanger	SET	1-6 0PGB09 AC001-003	A Set of heat exchanger plates including gaskets (430 Plates, including base & loose plates)	618615	HEAT EXCHANGER SPARES
Closed Circuit - Flow meter	METER, FLOW	0 1/2PGB 21/23/25/ 27/40/45/47/ 49/ 51/53/55/57/ 59/61/ 63/65; 1-6 0PGB 21/23/25/27/ 37/39/41 CF501	FLOW: TYPE: DUAL PULSE INSERTION; CONNECTION: BSPT 50 MM; RANGE: 0.25 TO 6300 LPS; MATERIAL: SS 316; DESIGN RATING: 80 BAR; ENCLOSURE RATING: IP68; MEDIUM: PROCESS WATER; CURRENT: 4-20MA; FLOW VELOCITY RANGE: 0.3 TO 10 M/S; POTENTIAL: SELF GENERATED VOLTAGE;	611056	C&I INSTRUMENTATION

Open & Closed Circuit - Temperature Transmitter Probe	DETECTOR, RESISTANCE TEMPERATURE	0 1/2PCB30-33 CT001; 1-6 0PCB30 CT001; 1-6 0PGB13 CT001;	DETECTOR, RESISTANCE TEMPERATURE: TYPE: PT100; TEMPERATURE RATING: -200 TO 600 DEG C; RESISTANCE: 300; NUMBER OF SENSORS: SINGLE; WIRE: 3; SHEATH MATERIAL: SS 316; PROCESS CONNECTION: BSPP 1/2 IN; HEAD: YES; TOLERANCE: +/-1 DEG C; SHEATH DIAMETER: 7 MM; SHEATH LENGTH: 340 MM; TERMINATION TYPE: NICKEL PLATED BRASS; SCREW TYPE ON CERAMIC BASE; REFERENCE NO: TLSR1-Y8D11H2;	611052	C&I INSTRUMENTATION
Open & Closed Circuit - Temperature Transmitter Probe	DETECTOR, RESISTANCE TEMPERATURE	0 1/2PCB70 CT001; 0 1/2PGB CT001	DETECTOR, RESISTANCE TEMPERATURE: TYPE: PT100; TEMPERATURE RATING: -200 TO 600 DEG C; RESISTANCE: 300; NUMBER OF SENSORS: SINGLE; WIRE: 3; SHEATH MATERIAL: SS 316; PROCESS CONNECTION: BSPP 1/2 IN; HEAD: YES; TOLERANCE: +/-1 DEG C; SHEATH DIAMETER: 7 MM; SHEATH LENGTH: 240 MM; TERMINATION TYPE: NICKEL PLATED BRASS; SCREW TYPE ON CERAMIC BASE; PART NO: TLSR1-Y8D11H2;	611051	C&I INSTRUMENTATION
200NB Check Valve	VALVE, CHECK	0 0GBK11/12/13/14 AA601;	200 NB, double door, non-return valve	630235	NON-RETURN VALVES
250NB Check Valve	VALVE, CHECK	0 1/2GKC10 AA601;	250 NB, double door, non-return valve	629368	NON-RETURN VALVES
300NB Check Valve	VALVE, CHECK	0 1/2PGB10-13 AA601; 0 0GBK09/10 AA601;	300 NB, double door, non-return valve	629367	NON-RETURN VALVES
350NB Check Valve	VALVE, CHECK	0 1/2PCB42-45 AA601	350 NB, double door, non-return valve	629369	NON-RETURN VALVES
500NB Check Valve	VALVE, CHECK	1-6 0PCB11-13 AA601; 1-6 0PGB10-12 AA601;	500 NB, double door, non-return valve	629370	NON-RETURN VALVES
Open & Closed Circuit – Unitised Pumps Automatic air release vent	VENT	1-6 0PCC11-13 AP001; 1-6 0PGC10-12 AP001;	VENT: TYPE: AUTOMATIC AIR RELEASE; DIMENSIONS: DIA 75 X HT 187 MM; MATERIAL: SS; APPLICATION: AUX COLLING UNITISED PUMP AUTO VENT; PART NO: AE30SS, ; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	616452	VENT VALVES

Aux Cooling Header Vent Valve - 025RBX2511	VENT	0 1/2GBK10 AA402/404; 0 1/2GKC10 AA402; 0 1/2PCB40 AA402/404; 0 1/2PCB70 AA402; 0 1/2PGB25/26 /37/57/58/ AA402; 0 1/2PGB40/41 AA402/404/4 06/408; 1-6 0PCB20 AA402; 1-6 0PCB30 AA402/404; 1-6 0PGB14 AA402; 1-6 0PGB21/22 AA402/404/4 06; 1-6 0PGB23/24/3 4 AA402; 1-6 0PGB36 AA402/404; 1-6 0PGB41/42 AA402; 1-6 0PGB35 AA402/404; 1-6 0PGB43/44 AA402;	Vent-O-Mat RBX Series auto vent valves	622593	VENT VALVES
Aux Cooling Header Vent Valve - 025RBXv2511	VENT	1-6 0PCB10 AA402;	Vent-O-Mat RBX Series auto vent valves	622594	VENT VALVES
Aux Cooling Header Vent Valve - 050RBX1611	VENT		Vent-O-Mat RBX Series auto vent valves	622592	VENT VALVES
Aux Cooling Header Vent Valve - 100RBX1601	VENT		Vent-O-Mat RBX Series auto vent valves	622596	VENT VALVES
Aux Cooling Header Vent Valve - 100RBXv1601	VENT		Vent-O-Mat RBX Series auto vent valves	622595	VENT VALVES
100NB Butterfly valve	VALVE, BUTTERFLY	0 1/2GBK11/21 /31/41 AA501; 0 1/2PGB39 AA401; 0 1PGB51/52/5 5/56/61/62/6 3/64/ 65/66	100 NB, hand operated, butterfly valve with Lever.	634008	BUTTERFLY VALVES

		AA501; 1-6 0PGB13 AA401/403; 1-6 0PGB30 AA401/404; 1-6 0PGB37/38 AA501;			
100NB Butterfly valve	VALVE, BUTTERFLY	1-6 0GHC01 AA001;	100 NB, actuator driven, butterfly valve.	634029	BUTTERFLY VALVES
150NB Butterfly valve	VALVE, BUTTERFLY	1-6 0PGB13 AA405; 1-6 0PGB29 AA401; 1-6 0PGB30 AA403; 1-6 0PGB39 AA501; 1-6 0PGB40 AA501; 0 1/2PCB41/15 AA501/502; 0 1/2PGB30 AA403; 0 1/2PGB49/50 /53/54 AA501;	150 NB, hand operated, butterfly valve with Lever.	634010	BUTTERFLY VALVES
150NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB41 AA001; 0 1/2PGB15 AA001;	150 NB, actuator driven, butterfly valve.	634009	BUTTERFLY VALVES
200NB Butterfly valve	VALVE, BUTTERFLY	0 0GBK11-14 AA501/502; 0 1/2PCB11 AA501; 1-6 0PGB21/22 AA501/502; 0 1/2PGB21/22 /23/24/ 27/28 AA501;	200 NB, hand operated, butterfly valve with gearbox	634012	BUTTERFLY VALVES
200NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB48/51 /54 AA101; 0 1/2PCB55/56 /57 AA101; 1-6 0PGB14 AA001; 0 1/2PCB11 AA101	200 NB, actuator driven, butterfly valve.	634011	BUTTERFLY VALVES
200NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCD10/20 /30/40 AA401;	200 NB, hand operated, butterfly valve with gearbox, and an additional extended stem.	634023	BUTTERFLY VALVES
250NB Butterfly valve	VALVE, BUTTERFLY	01/2GBK10 AA101; 0 1/2GKC10 AA101; 1-6 0PCB10	250 NB, actuator driven, butterfly valve.	634030	BUTTERFLY VALVES

		AA001			
250NB Butterfly valve	VALVE, BUTTERFLY	0 0GBK31 AA501; 0 1/2GBK10 AA501/502; 0 1/2GBK12 AA501; 0 1/2GKC10 AA501/502; 0 1/2GKC11 AA501; 1-6 0PCB10 AA501/502; 0 1/2PGB40/41 AA501	250 NB, hand operated, butterfly valve with gearbox	634028	BUTTERFLY VALVES
300NB Butterfly valve	VALVE, BUTTERFLY	0 0GBK09/10 AA501; 0 1/2PGB10-13 AA501/502; 0 1/2PGB31/33/35 AA501; 0 1/2PGB31/32/33/34/35/36 AA501; 1-6 0PGB14 AA501-503; 1-6 0PBG25/26 AA501;	300 NB, hand operated, butterfly valve with gearbox	633998	BUTTERFLY VALVES
350NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB46/49/52 AA101/102; 0 1/2PCB47/50/53 AA101;	350 NB, actuator driven, butterfly valve.	634021	BUTTERFLY VALVES
350NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB42/43/44/45 AA502; 1-6 0PGB23/24 AA501;	350 NB, hand operated, butterfly valve with gearbox	634022	BUTTERFLY VALVES
400NB Butterfly valve	VALVE, BUTTERFLY	1-6 0PCB22/24/26 AA101; 1-6 0PCB31-33 AA101;	400 NB, actuator driven, butterfly valve	634020	BUTTERFLY VALVES
400NB Butterfly valve	VALVE, BUTTERFLY	0 1PGB14 AA502; 0 1PGB30 AA503; 0 2PGB14 AA504/504; 0 2PGB30 AA503/504	400 NB, hand operated, butterfly valve with gearbox	634019	BUTTERFLY VALVES

450NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB42/43/44/45 AA501	450 NB, hand operated, butterfly valve with gearbox	634018	BUTTERFLY VALVES
500NB Butterfly valve	VALVE, BUTTERFLY	1-6 0PCB21/23/25 AA101/102; 1-6 0PCB27-29 AA101	500 NB, actuator driven, butterfly valve	634016	BUTTERFLY VALVES
500NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB70 AA501/2; 1-6 0PCB11-13 AA502; 1-6 0PGB31-33 AA501; 1-6 0PGB10-12 AA501/502; 1-6 0PGB15/16/17 AA501; 1-6 0PGB 27/28/31/32/33 AA501	500 NB, hand operated, butterfly valve with gearbox	634017	BUTTERFLY VALVES
600NB Butterfly valve	VALVE, BUTTERFLY	1-6 0PCB11-13 AA501;	600 NB, hand operated, butterfly valve with gearbox	634015	BUTTERFLY VALVES
700NB Butterfly valve	VALVE, BUTTERFLY	01/2PCB21-24 AA501; 0 1/2PCB35 AA501-504; 1-6 0PCB30 AA501-502;	700 NB, hand operated, butterfly valve with gearbox	634014	BUTTERFLY VALVES
900NB Butterfly valve	VALVE, BUTTERFLY	0 1/2PCB30/31/32/33 AA501	900 NB, hand operated, butterfly valve with gearbox	634013	BUTTERFLY VALVES
Open Circuit - Y-type strainer	STRAINER	1-6 0PCB21/23/25 AT001;	500 NB Y-type strainer		RANDOM SPARES
Closed Circuit - Y-type strainer	STRAINER	1-6 0PGB14 AT001	300 NB Y-type strainer		RANDOM SPARES
Closed Circuit - Pressure Relief valve	VALVE, RELIEF	1-6 0PGB37 AA601; 1-6 0PGB39 AA601; 1-6 0PGB41 AA601; 0 1/2PGB57/59 AA601; 0 1/2PGB49/53 AA601; 0 1/2PGB51/55 AA601; 0 1/2PGB45 AA601; 0 1/2PGB47 AA601;	Spring type, pressure relief valve set at 700 kPa.	641617	RANDOM SPARES
Open Circuit -	STRAINER	0	350 NB Y-type strainer	640191	RANDOM

Y-type strainer		1/2PCB46/49 /52 AT001			SPARES
Open & Closed Circuit - Manual ball valve	VALVE, BALL	1-6 0PCB22/24/26 AA501; 1-6 0PCB27-29 AA501; 0 1/2PCB47/50 /53 AA501; 0 1/2PCB48/51 /54 AA501; 0 1/2PGB14 AA401; 0 1/2PGB30 AA401; 1-6 0PGB27 AA301; 1-6 0PGB25 AA301; 1-6 0PGB23 AA301; 0 1/2PGB14 AA404; 0 1/2PGB30 AA405; 0 1/2PGB40 AA301; 0 1/2PGB57/59 AA301; 0 1/2PGB25 AA301; 0 1/2PGB23/27 AA301; 0 1/2PGB61/63 /65 AA301; 0 1/2PGB21 AA301;	50 NB, hand operated, ball valve	640185	RANDOM SPARES
Open & Closed Circuit - Manual ball valve	VALVE, BALL	1-6PCB11-13 AA301; 1-6 0PCC11-13 AA401; 1-6 0PCB11-13 AA302; 1-6 0PCB21/23/25 AA301; 1-6 0PCB27-29 AA301; 0 1/2PCB42-45 AA301; 0 1/2PCC10-13 AA401; 0 1/2PCB42-45 AA302; 0 1/2PCB46/49 /52 AA301; 0 1/2PCB47/50 /53 AA301; 0 1/2PGB10-13 AA301; 0 1/2PGC10-	15 NB, hand operated, lever type ball valve	640186	RANDOM SPARES

		13 AA401; 0 1/2PGB10-13 AA302; 0 1/2PGB14 AA301; 0 1/2PGB30 AA301; 0 0GBK11-14 AA301; 0 0GBK20-23 AA401; 0 0GBK11-14 AA302; 1-6 0PGB10-12 AA301; 1-6 0PGC10-12 AA401; 1-6 0PGB10-12 AA302; 1-6 0PGB14 AA301; 1-6 0PGB14 AA302-304; 0 1/2PGB49/53 AA301; 0 1/2PGB51/55 AA301; 0 1/2PGB45/47 AA301;			

4 Specification of the *service*s to be provided

Refer to the price list and a table in section 2 above, on this document.

5 Constraints on how the *Supplier* Provides the Goods

5.1 Programming constraints

The *Supplier* to provide delivery plan (as per clause 31.2) of the *goods* after receiving the purchase order.

5.2 Work to be done by the Delivery Date

No incorrect, damaged or faulty spares will be accepted. All spares will be inspected before and after offloading. Where testing is required, the test will be done during delivery. All required manuals and test certificates must be available during delivery.

5.3 Constraints at the delivery place and place of use

The *Supplier* shall adhere to Eskom speed limit of 40 km/h while driving on site. The preferred delivery times are Monday to Thursday between 07:00-16:00 and Friday between 07:00-12:00. However, for urgent delivery, the *Supplier* will communicate with the *Supply Manager* to agree on the time and date of delivery. The *Supplier* shall adhere to Eskom Life Saving rules

5.4 Services & other things to be provided by the *Purchaser* or *Supplier*

The *Purchaser* will provide the overhead cranes and forklift during offloading of the goods. The *Purchaser* will also provide the operator for both machines.

5.5 Management meetings

Meetings of a specialist nature may be convened as specified elsewhere in this Goods Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the manufacture of the *goods*. Records of these meetings shall be submitted to the *Supply Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

5.6 Documentation control

Contractual communication can be done though emails. For urgent request, both Parties can use telephone as form of communication, however it should be confirmed by email.

5.7 Health and safety risk management

The *Supplier* shall comply with the health and safety requirements of ISO 45001 and OHSAct No.85 of 1993.

5.8 Environmental constraints and management

The *Supplier* shall comply with the environmental criteria and constraints.

5.9 Quality

The *Supplier* shall comply with the requirements of ISO 9001:2015.

5.10 Invoicing and payment

Within one week of receiving a payment certificate from the *Supply Manager* in terms of core clause 51.1, the *Supplier* provides the *Purchaser* with a tax invoice showing the amount due for payment equal to that stated in the *Supply Manager's* certificate.

The *Supplier* shall address the tax invoice to *Purchaser* and include on each invoice the following information:

- Name and address of the *Supplier* and the *Supply Manager;*
- The contract number and title;
- *Supplier*'s VAT registration number;
- The *Purchaser*'s VAT registration number which is 4740101508.
- Description of *goods* and *service*s provided for each item invoiced based on the Price Schedule;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

Procedure for invoice submission and payment

- All Electronic invoices must be sent in PDF format only.
- An Invoice that was printed and then scanned to PDF by the Vendor is not acceptable as this is not an original tax invoice by SARS definition but a copy.
- The following wording needs to appear on the invoice: "Your invoice is encrypted in order to comply with SARS requirements that invoices, and statements sent electronically are tamperproof."
- All queries and follow up on invoice payments should made by contacting the FSS Contact Centre: Tel: 011 800 5060 or email:fss@eskom.co.za

5.11 Contract change management

The *Purchaser* will provide a standard form for contract communications. Forms for compensation event, instructions, risk register, early warning, notifications

5.12 Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Supplier* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Purchaser* may withhold payment of amounts due to the *Supplier* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Supplier* by the *Supply Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Supplier* does not affect the *Purchaser*'s right to termination stated in this contract.

5.13 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Supplier*

The *Supplier* will prepare the assessment of compensation event and the *Purchaser* must review before accepting. Both parties keep records of the assessment for a period of 12 months after the contract has expired. The compensation event prices should be as Price List of the contract.

6 Procurement

6.1 Subcontracting

6.1.1 Preferred subcontractors

The *Supplier* has full responsibility of Providing the Goods whether subcontracting or not.

6.1.2 Limitations on subcontracting

Not applicable, however, Tenderers will be encouraged to utilise Local-to-site Suppliers whenever feasible.

6.1.3 Spares and consumables

The *Purchaser* may instruct the *Supplier* to deliver part of the spares as the need arise due to plant condition.

6.1.4 Skill development

Tenderers are required to submit proposals in a table below for developing the skills of unemployed candidates in the country. Skills development is intended to address Eskom's core, scarce and critical skills and the scarce and critical skills. These skills are also included in a 2020 list of occupations in high demand as stipulated in the Government Gazette 43937. Candidates shall be from all provinces in the country, and their composition shall be representative of the population demographics of South Africa

Skill type / Occupation	Eskom target	Proposed Number of Candidates

The process of developing these skills shall involve the participation by tenderers directly and through their supply network. In certain cases, the SETA's accredited training providers can be approached to participate in developing critical and scarce skills.

Note: That these targets for skills development candidates categorically exclude Eskom employees and registered learners. The tenderers are required to take full responsibility for the total cost of developing the requisite skills, and Eskom shall not make any financial contribution towards the fulfilment of this obligation. Tenderers also are advised to approach their relevant SETAs to access grants, subsidies, and incentives as well as South African Revenue Services for tax rebates that are earmarked for skills development initiatives

6.1.5 SDL&I Penalty and Performance Security

Eskom will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations.

For the duration of the contract, Eskom will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon:

- Eskom receives the SDL&I progress report/s from the contractor.
- Fulfilment of all SDL&I obligations by the contractor.

Submission of an approved compliance report by SDL&I Department

6.1.6 Cataloguing requirements by the *Supplier*

When spares are procured, the spare specifications are captured on Data Capturing Forms (DCF's) and then to SAP materials management. The *Supplier* will be required to complete the DCF where Eskom does not have information

7 List of drawings

7.1 Drawings issued by the *Purchaser*

This is the list of drawings issued by the *Purchaser* at or before the Contract Date and which apply to this contract.

Drawing number	Revision	Title

C3.2 *SUPPLIER*'S GOODS INFORMATION

This section of the Goods Information will always be contract specific depending on the nature of the *goods* and *service*s.
It is most likely to be required for supply contracts where the tendering supplier will have proposed specifications and schedules for the *goods* and *service*s, which once accepted by the *Purchaser* prior to award of contract now become obligations of the *Supplier* per core clause 20.1.

This section could also be compiled as a separate file.