



NEC3 Term Service Contract (TSC3)

**Between ESKOM HOLDINGS SOC LIMITED
(Reg No. 2002/015527/06)**

and

for General Service and overhaul of Turbine High Pressure, High Temperature and General valves on unit 1-6 during outages, running maintenance and opportunity maintenance over a period of five (5) years.

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CONTRACT No.

PART C1: AGREEMENTS & CONTRACT DATA

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[to be inserted from Returnable Documents at award stage]	

C1.1 Form of Offer & Acceptance

Offer

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

General Service and Overhaul of Boiler General Valves on unit 1-6 during outages and during opportunity maintenance.

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto and by submitting this Offer has accepted the Conditions of Tender.

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 *Contractor* 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.

Options A or C	The offered total of the Prices exclusive of VAT is	Rate base
	Value Added Tax @ 15% is	Rate base
	The offered total of the amount due inclusive of VAT is ¹	Rate base
	Rate base	

This Offer may be accepted by the Employer 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 *Contractor* 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

Tenderer's CIDB registration number:

¹ This total is required by the *Employer* 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 Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor 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 Employer 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: Service Information

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 Employer 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 Employer'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 original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s) Karabo Rakgolela

Capacity General Manager

for the Employer Eskom Lethabo Power Station

(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 *Employer* 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 Employer 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

By the duly authorised representatives signing this Schedule of Deviations below, the Employer 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 Employer 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 Employer**

Signature

Name

Capacity

On behalf
of*(Insert name and address of organisation)*Name &
signature
of witness

Date

Karabo Rakgolela

General Manager Eskom Lethabo Power
Station*(Insert name and address of organisation)*

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X1: Price adjustment for inflation
		X2: Changes in the law
		X17: Low service damages
		X13: Performance bond
		X18: Limitation of liability
		X19: Task Order
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract (June 2005) ²	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Limited (Reg No: 2002/015527/06), a juristic person 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 <i>Service Manager</i> is (name):	
	Address	Lethabo Power Station Private Bag X 415 Vereeniging 1930
	Tel	
	Fax	
	e-mail	
11.2(2)	The Affected Property is	Lethabo Power Station Unit 1 to

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

11.2(13)	The <i>service</i> is	General Service and overhaul of Turbine High Pressure, High Temperature and General valves on unit 1-6 during outages, running maintenance and opportunity maintenance over a period of five (5) years.
11.2(14)	The following matters will be included in the Risk Register	1. Unavailability of spares during the outages. 2. Unavailability of the resources due to outages in multiple outages in other sites. 3. Movement of outages due to capacity plans. 4. Plant unavailability due to high temperatures (Opportunity Maintenance).
11.2(15)	The Service Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	2 days
2	The Contractor's main responsibilities	(If the optional statement for this section is not used, no data will be required for this section)
21.1	The <i>Contractor</i> submits a first plan for acceptance within	30 days before the start of each outage.
3	Time	
30.1	The <i>starting date</i> is.	
30.1	The <i>completion date</i> is	
4	Testing and defects	No data is required for this section of the <i>conditions of contract</i> .
5	Payment	
50.1	The <i>assessment interval</i> is	Completion of each task order
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	4 weeks.
51.4	The <i>interest rate</i> is	(i) zero percent above the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa (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 and (ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question

then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

6	Compensation events	
	These are additional compensation events:	<p>1 [•]</p> <p>2 [•]</p>
7	Use of Equipment Plant and Materials	No data is required for this section of the <i>conditions of contract</i> .
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	NO
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	as stated for "Format TSC3" available on http://www.eskom.co.za/live/content.php?Item_ID=9248 (See Annexure A for basic guidance).
83.1	The <i>Employer</i> provides these additional insurances	as stated for "Format TSC3" available on http://www.eskom.co.za/live/content.php?Item_ID=9248 (See Annexure A for basic guidance)
83.1	The minimum amount of cover for insurance against loss and damage caused by the <i>Contractor</i> to the <i>Employer's</i> property is	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/live/content.php?Item_ID=9248
83.1	The minimum amount of cover for loss of or damage to Plant and Materials provided by the <i>Employer</i> is:	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/live/content.php?Item_ID=9248
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service for any one event is:	whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i>.
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130

injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is:

of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands)..

9	Termination	NEC3 Contract will be used.		
10	Data for main Option clause			
A	Priced contract with price list			
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the service at intervals no longer than	<ul style="list-style-type: none"> • 4 weeks before start of each outage. • For call-outs; within 24 hours after assessing the defects. 		
11	Data for Option W1			
W1.1	The <i>Adjudicator</i> is (Name)	<p>Either State the name of the person selected & complete the contact details below Or, state the person selected from the Eskom Panel of Adjudicators listed in Annexure B to this Contract Data by the Party intending to refer a dispute to him.</p>		
	Address	[•]		
	Tel No.	[•]		
	Fax No.	[•]		
	e-mail	[•]		
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of the Joint Civils Division of the South African Institution of Civil Engineering. (See www.jointcivils.co.za)		
W1.4(2)	The <i>tribunal</i> is:	arbitration		
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.		
	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.		
12	Data for secondary Option clauses			
X1	Price adjustment for inflation			
X1.1	The <i>base date</i> for indices is			
	The proportions used to calculate the	proportio	linked to	Index prepared by

	Price Adjustment Factor are:	<table> <tr> <td>n</td><td>index for</td><td></td></tr> <tr> <td>Fixed</td><td>%</td><td>[•]</td></tr> <tr> <td>Labour (All hourly paid Employees</td><td>%</td><td></td></tr> <tr> <td>Mechanical Engineering</td><td>%</td><td></td></tr> <tr> <td>Transport</td><td>%</td><td></td></tr> <tr> <td>Total</td><td>100%</td><td></td></tr> </table>	n	index for		Fixed	%	[•]	Labour (All hourly paid Employees	%		Mechanical Engineering	%		Transport	%		Total	100%	
n	index for																			
Fixed	%	[•]																		
Labour (All hourly paid Employees	%																			
Mechanical Engineering	%																			
Transport	%																			
Total	100%																			
X2	Changes in the law	of the Republic of South Africa is a compensation event if it occurs after the Contract Date.																		
X17	Low service damages	% of the task order value per day up to the maximum 15% of the total task order value																		
X17.1	The <i>service level table</i> is in	Page 16																		
X18	Limitation of liability																			
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R500-00 Five hundred Rand per day																		
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/live/content.php?Item_ID=9248																		
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	<p>The greater of</p> <ul style="list-style-type: none"> the total of the Prices at the Contract Date and the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles in the <i>Employer's</i> assets and works / maintenance policies available on http://www.eskom.co.za/live/content.php?Item_ID=9248 																		
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional</p>																		

excluded matters is not limited.

The additional excluded matters are amounts for which the *Contractor* is liable under this contract for

- Defects due to his design, plan and specification,
- Defects due to manufacture and fabrication outside the Affected Property,
- loss of or damage to property (other than the *Employer's* property, Plant and Materials),
- death of or injury to a person and
- infringement of an intellectual property right.

X18.5 The *end of liability date* is **[•] months after the end of the *service period*.**

X19	Task Order
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X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within 5 days of receiving the Task Order
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Z	The additional conditions of contract are Z1 to Z11 always apply.
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Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* 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 and the Electricity Distribution Industry.

Z2 Joint ventures

- Z2.1 If the *Contractor* 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 *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Service Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not substantially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary

supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.

- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Ethics

- Z4.1 Any offer, payment, consideration, or benefit of any kind made by the *Contractor*, which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as an inducement or reward for the award or in execution of this contract constitutes grounds for terminating the *Contractor's* obligation to Provide the Service or taking any other action as appropriate against the *Contractor* (including civil or criminal action).
- Z4.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Service if the *Contractor* (or any member of the *Contractor* where the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.

Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Contractor* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice.

- Z4.3 Notwithstanding the provisions of core clause 90.2, the procedures on termination in terms of this clause are P1, P2 and P4 as stated in the core clause 92 and the amount due is A1 and A3 as stated in core clause 93.

Z5 Confidentiality

- Z5.1 The *Contractor* 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 *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z5.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Service Manager*.
- Z5.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* 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 *Contractor* 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.
- Z5.4 The taking of images (whether photographs, video footage or otherwise) of the Affected Property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Service Manager*. All rights in and to all

such images vests exclusively in the *Employer*.

Z5.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z6 Waiver and estoppel: Add to core clause 12.3:

Z6.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Service 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.

Z7 Health, safety and the environment: Add to core clause 27.4

Z7.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:

- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2003 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Affected Property;
- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, 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 the *service*; and
- undertakes, in and about the execution of the *service*, to comply with the Construction Regulations and 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 *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z7.2 The *Contractor*, in and about the execution of the *service*, 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 *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z8 Provision of a Tax Invoice and interest. Add to core clause 51

Z8.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.

Z8.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* 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 *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z8.3 The *Contractor* (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 *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z9 Notifying compensation events

Z9.1 Delete from the last sentence in core clause 61.3, "unless the *Service Manager* should have notified the event to the *Contractor* but did not".

Z10 *Employer's limitation of liability*

- Z10.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z10.2 The *Contractor's* entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for under the compensation events stated in this contract.

Z11 *Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":*

- Z11.1 or had a judicial management order granted against it.

Annexure A: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. Details of the insurance itself are available from the internet web link given below.

1. Services provided in a TSC3 contract could include some element of construction or refurbishment as well as a continuous maintenance or operational service activity. If an event occurs which causes loss or damage, a claim could be made either against the *Employer's* "works" type policy which may be in place for the *Employer's* portion of the Affected Property concerned or against the *Employer's* assets policy which may be in place for the *Employer's* portion of the Affected Property concerned, or both.
2. The cover provided and the deductibles under the works policy are different to those under the assets policy. Each policy has a range of applicable deductibles depending on the location of the Affected Property and the nature of the insurable event.
3. The *Contractor* is required in terms of Contract Data for clause 83 to provide cover for the deductibles in the insurance provided by the *Employer*. This can be provided from his own resources on a 'self insured' basis or obtained by him from his own insurers. In order to assess the extent of this cover, tendering contractors and their brokers should consult the internet web link given below and scroll to '**Format TSC3**' to establish both the cover and the deductibles in relation to the *service* provided in terms of this contract.
4. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 83.2. In terms of clause 83.1 "the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
5. If Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
6. **Further information and full details of all Eskom provided policies and procedures may be obtained from:**

http://www.eskom.co.za/live/content.php?Item_ID=9248

Annexure B: The *Employer's* Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)
Nigel ANDREWS	Gauteng	+27 11 836-6760 nigela@quoin.net
Andrew BAIRD	Gauteng	+27 11 803 3008 andrewbaird@ecsconsult.co.za
Christopher BINNINGTON	Gauteng	+27 11 888-6141 cdb@bca.co.za
Peter HIGGINS	UK	+44 1293 873 868 peterhiggins@pdconsult.co.uk
Bruce LEECH	Gauteng	+27 11 290 4000 leech@counsel.co.za
Nigel NILEN	Gauteng	+27 11 465 3601; nilences@global.co.za
Peter THURLOW	Gauteng	+27 11 787 6226 info@thurlowassoc.com

Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations management, by contacting Leighton Itholeng (Tel.: +27 (0)11 800 4031) (Fax :+27 (0)86 668 0419) E-mail: Leighton.Itholeng@eskom.co.za

X17	Low service damages
X17.1	The service level table is

CRITERIA	WEIGHT	UNIT	TARGET	PENALTY 10%	PENALTY 20%	PENALTY 30%
PSR	50%	Months	2	3	4	5
Overdue SHEQ Audit findings	20%	Days	0	1	3	5
Non-conformance Reports (NCR) issued to contractor	20%	Number	0	1 per month	2 per month	3 per month
Medical Expiry	5%	Days	0	1	2	3
Strike	5%	Days	0	1	2	3

The penalty will be effective as soon as the target has been missed.
The weight is of the total assessment value.

Low Service Damage Description	Value of Low Service Damages	Limit of Low Service Damages
Service delaying the outage Critical Path and other Contractor(s) from starting or completing their work.	1% per day of the Task Order value.	Limited to 15% of the Task Order value.
Service delays not finishing as per agreed upon schedule submitted to the Contract Manager.	1% per day of the Task Order value.	Limited to 15% of the Task Order value.
Rework due to poor workmanship.	1% per day of the Task Order value.	Limited to 15% of the Task Order value.
Response to NCR and Early warnings within 3 days.	1% per day of the Task Order value.	Limited to 15% of the Task Order value.
Failure to maintain housekeeping and closure of any housekeeping issues raised within 24 hours both in the plant and the Contractor's yard.	0.5% per day of the Task Order value.	Limited to 15% of the Task Order value.
Not providing appropriate PPE (SABS approved & company brand/logo)	0.5% per day of the Task Order value.	Limited to 15% of the Task Order value.
Failure to use FME covers as per FME procedure during the refurbishment of the valves; which may lead to foreign material ingressing the system.	0.5% per day of the Task Order value.	Limited to 15% of the Task Order value.
Use of substandard tools/equipment or any form of machinery i.e., non-road worthy vehicles, uncalibrated tools, etc	0.5% per day of the Task Order value.	Limited to 15% of the Task Order value.

Negligence or an act of omission from the contractor resulting in man hour's loss or any similar direct loss will be deemed as low service damages.

Service Manager:

Signature:

Date:

Contractor Manager:

Signature:

Date:

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

1. Please read both the both the NEC3 Term Service Contract (June 2005) and the relevant parts of its Guidance Notes (TSC3-GN)³ in order to understand the implications of this Data which the tenderer is required to complete.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

CV's (and further key person's data including CVs) are in .

E	Cost reimbursable contract
11.2(12)	The <i>price list</i> is in Page 19 - 26

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i>	19

Description	Quantity	Total
Once-off Site Establishment and De-Establishment	1	

Outage Turbine General Valves GO Prices:

No.	AKZ No.	Description	Valve Size (mm)	Price (EA)
1	RH10S002	LP Heater 1 Standpipe top isolating valve	80	
2	RH10S003	LP Heater 1 Standpipe drain valve	50	
3	RH10S004	LP Heater 1 Standpipe vent valve	25	
4	RH10S005	LP Heater 1 Vent to Condenser	50	
5	RH10S006	LP Heater 1 Vent to Condenser	50	
6	RH10S007	LP Heater 1 hydraulic test Connection	50	
7	RH10S008	LP Heater 1 Stand Pipe Filling valve	15	
8	RH10S009	Make-up Water Heater Bled Steam Isol	350	
9	RH10S010	Make-up Water Heater Vent to Condenser	25	
10	RH10S011	LP Heater 1 Standpipe bottom isolating valve	80	
11	RH10L501KA01	LP Heater 1 level Control valve	25	
12	RH10L502KA01	Make-up water level control	25	
13	RH20S002	LP Heater 2 Standpipe top isolating valve	80	
14	RH20S003	LP Heater 2 Standpipe drain valve	50	
15	RH20S004	LP Heater 2 Standpipe vent valve	25	
16	RH20S005	LP heater 2 Vent to Condensor	50	
17	RH20S006	LP heater 2 Vent to Condensor	50	
18	RH20S007	LP Heater 2 hydraulic test Connection	50	
19	RH20S008	LP heater 2 Stand Pipe Filling	15	
20	RH20S009	LP heater 2 Stand Pipe Bottom Isol Valve	80	
21	RH20L501KA01	LP Heater 2 level control	25	
22	RH30S004	LP Heater 3 Standpipe top isolating valve	80	
23	RH30S005	LP Heater 3 Standpipe drain valve	50	
24	RH30S006	LP Heater 3 Standpipe vent valve	25	
25	RH30S007	LP Heater 3 Vent to condenser	50	
26	RH30S008	LP Heater 3 Vent to condenser	50	
27	RH30S010	LP Heater 3 Standpipe filling	15	
28	RH30S011	LP Heater 3 hydraulic test Connection	50	
29	RH30S012	LP Heater 3 Standpipe bottom isolating valve	80	
30	RH30L501KA01	LP Heater 3 level control	25	
31	RN10S008	LP Heater 1 Drain Pump Condensate Inlet Isol Valve	250	
32	RN10S009	LP Heater 1 Drain Pumps Suction Drain	25	

33	RN10S010	LP Heater 1 Drain Pump A Suction Vent to LP Htr 1	25	
34	RN10S011	LP Heater 1 Drain Pump B Suction Vent to LP Htr 2	25	
35	RN10S012	LP Heater 1 discharge vent valve	25	
36	RN10S014	LP Heater 1 drain pump discharge drain valve	50	
37	RN10S015	LP Heater 1 Drain Pump A Leak Off NRV	100	
38	RN10S016	LP Heater 1 drain pump A Leak Off Isol	100	
39	RN10S017	LP Heater 1 Drain Pump B Leak Off NRV	100	
40	RN10S018	LP Heater 1 drain pump B Leak Off Isol	100	
41	RN10S019	LP Heater 1 Drain Pumps leak-off drain valve	25	
42	RN11S001	LP Heater 1 Barometric Loop Drain	15	
43	RN11S002	LP Heater 1 Barometric Loop Test Point	25	
44	RN12S001	Make-up water heater drain to LP heater 1	50	
45	RN12S002	Make-up water Heater hydraulic test Connection	50	
46	RN20S001	LP Heater 2 to LP Heater 1 dist isol. v/v	250	
47	RN21S002	LP Heater 2 Dist drain valve	25	
48	RU10S002	Feed water tank drain isolating valve	200	
49	RU10S003	FWT Overflow Isol Valve	200	
50	RU10S004	FWT Overflow Drain	25	
51	RU20S001	Expansion vessel drain to condenser isolating valve	100	
52	RU20S004	Expansion Vessel Stand Pipe Vent Valve	25	
53	RU20S005	Expansion Vessel Stand Pipe Drain Valve	25	
54	RU20S006	Expansion Vessel Emergency overflow water to pit	200	
55	RU20S007	Expansion Vessel to Drain Tank Stand Pipe Bottom Isol	80	
56	RU20S008	Expansion Drain Tank Return Drain	25	
57	RU20S009	Expansion Vessel and Drain Tank Stand Pipe Top Isol	80	
58	RU21S001	Expansion Vessel Drain Pump A Suction Isol	200	
59	RU21S002	Expansion Vessel Drain Pump A Discharge NRV	100	
60	RU21S003	Expansion Vessel Drain Pump A Discharge Isol	100	
61	RU21S004	Condensate Return Pump A Low Check Valve	50	
62	RU21S005	Condensate Return Pump A Low Isol Valve	50	
63	RU22S001	Expansion Vessel Drain Pump B Suction Isol	200	
64	RU22S002	Expansion Vessel Drain Pump B Discharge NRV	100	
65	RU22S003	Expansion Vessel Drain Pump Discharge Isol	100	
66	RU22S004	Condensate Return Pump B Low Check Valve	50	
67	RU22S005	Condensate Return Pump B Low Isol Valve	50	
68	RU10S001	FWT overflow Reg valve	200	
69	RU20S003	Expansion vessel drain to condenser regulating valve	100	
70	RM00S001	Gland Steam Condenser Inlet Isol Valve	500	
71	RM00S002	Gland Steam Condenser Outlet Isol Valve	500	
72	RM00S005	LPH 1 Inlet Isol Valve	500	
73	RM00S006	LPH 1 Outlet Isol Valve	500	
74	RM00S008	LPH 2 Inlet Isol Valve	500	
75	RM00S009	LPH 2 Outlet Isol Valve	500	
76	RM00S011	LPH 3 Inlet Isol Valve	500	
77	RM00S012	LPH 3 Outlet Isol Valve	500	
78	RM00S014	Condensate to feed water tank inlet NRV	350	
79	RM00S015	Condensate to feed water tank inlet NRV	350	
80	RM00S016	LP Heater 1 inlet drain valve	50	
81	RM00S017	LP Heater 1 outlet vent valve	25	
82	RM00S018	LP Heater 2 inlet drain valve	50	
83	RM00S019	LP Heater 2 outlet vent valve	25	
84	RM00S020	LP Heater 3 inlet drain valve	50	

85	RM00S021	LP Heater 3 outlet vent valve	25	
86	RM00S022	LP Condenser Hotwell Drain	100	
87	RM00S023	Gland steam Condenser Inlet vent valve	25	
88	RM00S024	Gland steam condenser Inlet drain valve	25	
89	RM00S025	Gland Steam Condenser Inlet Bypass Isol Valve	50	
90	RM00S026	LPH 1 Inlet bypass Isol Valve	50	
91	RM00S027	LPH 2 Inlet bypass Isol Valve	50	
92	RM00S028	LPH 3 Inlet Bypass Isol Valve	50	
93	RM00S029	LP Heater 1 Hydraulic test connection	50	
94	RM00S030	LP Heater 2 Hydraulic test connection	50	
95	RM00S031	LP Heater 3 Hydraulic test connection	50	
96	RM00S032	Condensate to LPH1 NRV	500	
97	RM00S033	LP Heaters condensate drain	50	
98	RM00S034	Gland Steam Condenser pipe vent valve	25	
99	RM00S035	Condensate Drain After Hotwell Reg Valve	25/50	
100	RM00S040	Gland steam Condenser Outlet vent valve	25	
101	RM00S041	Gland steam Condenser Outlet drain valve	25	
102	RM01S001	CEP A Suction Isol Valve	800	
103	RM01S002	CEP A Discharge NRV	400	
104	RM01S006	CEP's Suction Drain	50	
105	RM02S001	CEP B Suction Isol Valve	800	
106	RM02S002	CEP B Discharge NRV	400	
107	RM02S003	CEP B Discharge Isol Valve	400	
108	RM02S004	CEP B Suction relief valve	50	
109	RM02S005	CEP B Suction Drain Valve	50	
110	RM03S001	LP Bypass Spraywater bypass valve	25	
111	RM04S001	Seal Water System Isol Valve	50	
112	RM04S002	Seal Water Pressure Reducing valve	50	
113	RM04S003	Main Condenser Stand Pipe Filling Isol Valve	25	
114	RM04S004	Seal Water Header Drain	25	
115	RM04S005	BFPT Seal Water Isolation	25	
116	RM04S006	Main Turbine Seal Water Isol Valve	25	
117	RM04S007	Air Extraction Seal Water Isol Valve	25	
118	RM04S008	LP Heater Seal Water Isol Valve	25	
119	RM04S009	LP Heater Seal Water Isol Valve	25	
120	RM04S010	LP Heater Seal Water Isol Valve	25	
121	RM04S011	LP Heaters Stand Pipe Filling NRV	25	
122	RM04S012	HP Heater 6A / 6B Stand Pipe Filling NRV	25	
123	RM04S013	HP Heater 5A / 5B Stand Pipe Filling NRV	25	
124	RM04S014	Seal Water to CEP A Isol Valve	15	
125	RM04S015	Seal Water to CEP B Isol Valve	15	
126	RM04S016	Filler Pipe to Loop LPH 1	25	
127	RM04S017	LPH 1 Drain Pump A Seal Water Isol Valve	15	
128	RM04S018	LPH 1 Drain Pump B Seal Water Isol Valve	15	
129	RM04S019	Expansion Vessel Stand Pipe Filling	25	
130	RM04S020	BFPT Stand pipe Filling Isol Valve	25	
131	RM04S021	Seal Water to Flash Box 2 Isol Valve	15	
132	RM05S002	CRT Dumping from Condensate NRV	300	
133	RM05S003	Condensate Recirc Pipe Drain	25	
134	RM06S001	Condensate Reserve Tank Outlet V/v	600	
135	RM06S002	FWT Low limit emergency Reg V/v	250	
136	RM06S004	CRT Drain	100	

137	RM06S005	Condensate Reserve Tank Level Drain	50	
138	RM06S006	Condensate Reserve Tank Level Drain	15	
139	RM06S007	Condensate Recirc Pipe Drain	50	
140	RM07S002	CEP's Recirc Line Drain	25	
141	RM08S001	Flashbox Spraywater Valve	65	
142	RM08S002	LP Hood Spray Water Valve	40	
143	RM08S003	Flashbox Spraywater Bypass Isol Valve	25	
144	RM09S001	Recirc/Filling pump Suction Isolating	100	
145	RM09S002	Filling Pump Discharge Isol Valve	80	
146	RM09S003	Filling Pump Discharge NRV	80	
147	RM09S004	Leak off Pipe from Filling Pump Isolating	50	
148	RM09S005	Leak off Pipe from Filling Pump NRV	50	
149	RM10S001	GSC bypass Isol Valve	500	
150	RM21S001	EFP A Filling Isolation Check Valve	50	
151	RM21S002	EFP A Filling Isolation	50	
152	RM22S001	EFP B Filling Isolation Check Valve	50	
153	RM22S002	EFP B Filling Isolation	50	
154	RM23S001	BFPT Filling Isolation Check Valve	50	
155	RM23S002	BFPT Filling Isolation	50	
156	RM30S001	LPH 1 Bypass Isol Valve	400	
157	RM40S001	LPH 2 Bypass Isol Valve	400	
158	RM70S001	BFPT GSC Inlet Isol Valve	125	
159	RM70S002	BFPT GSC Outlet Isol Valve	125	
160	RM70S003	BFPT GSC Bypass Isol Valve	125	
161	RM70S005	BFPT CEP Discharge Drain Isolation	25	
162	RM70S006	BFPT GSC Condensate Drain	25	
163	RM70S007	BFPT GSC Condensate Vent	25	
164	RM70S009	BFPT Condenser Hot well Drain	80	
165	RM70S010	BFPT Condensate Inlet to Main Condenser Isolating	25	
166	RM70S011	BFPT Condenser Condensate Drain	25	
167	RM71S001	BFPT CEP A Suction Isolation	200	
168	RM71S003	BFPT CEP A Discharge Isolation	125	
169	RM71S004	BFPT CEP A Suction Pipe Bent Isolation	25	
170	RM71S005	BFPT CEP A Seal Water Isolation	15	
171	RM72S001	BFPT CEP B Suction Isolation	200	
172	RM72S003	BFPT CEP B Discharge Isolation	125	
173	RM72S004	BFPT CEP B Suction Pipe Bent Isolation	25	
174	RM72S005	BFPT CEP B Seal Water Isolation	15	
175	UG53S001	Make-up water valve 4 nozzle	80	
176	UG53S002	Make-up water heater inlet isolating valve	100	
177	UG53S003	Make-up water heater outlet isolating valve	100	
178	UG53S005	Make-up water Heater inlet drain	25	
179	UG53S006	Demin Water Hydraulic Test Connection	25	
180	UG53S007	Make-up Water Heater Vent	15	
181	UG53S008	Make-up water valve 2 nozzle	65	
182	UG54S001	Make-up water heater bypass	100	
183	UG70S003	Feed water tank standpipe filling isolating valve	25	
184	UG70S004	Feed water tank standpipe filling check valve	25	
185	RB00S100	Hot reheat drain stop valve	100	
186	RB00S101	Hot reheat drain valve	100	
187	RB00S102	Hot Reheat Drain Pot Level Isol Valve	25	
188	RB00S103	Hot Reheat Drain Pot Level Isol Valve	25	

189	RB40S001	IP Bypass drain steam trap isolating valve	25	
190	RB40S003	IP Bypass Reg Valve Drain Valve	25	
191	RC00S001	HP Exhaust Drain Valve	50	
192	RC01S002	Cold reheat 1 drain stop valve	100	
193	RC01S003	Cold reheat drain valve 1	100/70	
194	RC01S004	Starting Drain Cold Reheat Level Monitor Isolating	25	
195	RC01S005	Starting Drain Cold Reheat Level Monitor Isolating	25	
196	RC01S008	Cold Reheat Air Suction isolating valve	50 - (2")	
197	RC01S009	Cold reheat air suction NRV	50 - (2")	
198	RC02S002	Cold reheat 2 drain stop valve	100	
199	RC02S003	Cold reheat drain valve 2	100/70	
200	RC02S004	Starting drain cold reheat level monitor Isolating	25	
201	RC02S005	Starting drain cold reheat level isolating valve	25	
202	RC02S008	Cold Reheat Air Suction isolating valve	50 - (2" ANSI)	
203	RC02S009	Cold reheat air suction NRV	50 - (2" ANSI)	
204	RC20S002	BFPT Cold reheat motorised drain valve	25	
205	RC20S003	Cold reheat & Auxiliary steam trap inlet valve	25	
206	RC30S005	Auxiliary steam CRH vent valve	25	
207	RF51S005	HP Heater 5A Standpipe vent	25	
208	RF51S006	HP Heater 5A vent	25	
209	RF51S007	HP Heater 5A vent to condensor	25	
210	RF51S008	HP Heater 5A Vent to Atmosphere	15	
211	RF51S009	HP Heater 5A Drain (regulating)	50	
212	RF51S010	HP heater 5A hydraulic test connection	50	
213	RF51S011	HP Heater 5A Standpipe filling	25	
214	RF51S012	HP Heater 5A BSV inlet Drain trap isol	25	
215	RF51S014	HP Heater 5A Standpipe bottom isol	80	
216	RF51S015	HP Heater 5A Drain Isol	50	
217	RF52S003	HP Heater 5B Standpipe top isolation	80	
218	RF52S004	HP Heater 5B standpipe drain	25	
219	RF52S005	HP Heater 5B Standpipe Vent	25	
220	RF52S006	HP Heater 5B Vent	25	
221	RF52S007	HP Heater vent to condensor	25	
222	RF52S008	HP Heater 5B Vent to atmosphere	15	
223	RF52S009	HP Heater 5B Drain v/v (reg.)	50	
224	RF52S010	HP Heater 5B Hydraulic test connection	50	
225	RF52S011	HP Heater 5B Standpipe filling	25	
226	RF52S012	HP Heater 5B BSV inlet Drain trap isol	25	
227	RF52S014	HP Heater 5B Standpipe bottom isol	80	
228	RF52S015	HP Heater 5B Drain v/v (isol)	50	
229	RF61S003	HP Heater Standpipe top isol v/v	80	
230	RF61S004	HP Heater 6A Standpipe drain v/v	25	
231	RF61S005	HP Heater 6A Standpipe vent	25	
232	RF61S006	HP Heater 6A vent	25	
233	RF61S007	HP heater 6A vent to Condensor	25	
234	RF61S008	HP Heater 6A vent to Atmosphere	15	
235	RF61S009	HP Heater 6A Drain (reg)	50	
236	RF61S010	HP Heater 6A Hydraulic test connection	50	
237	RF61S011	HP Heater 6A Standpipe filling	25	
238	RF61S014	HP heater 6A standpipe bottom isol	80	

239	RF61S015	HP Heater 6A Drain isol	50	
240	RF62S003	HP Heater 6B Standpipe top isol v/v	80	
241	RF62S004	HP Heater 6B Standpipe Drain v/v	25	
242	RF62S005	HP Heater 6B Standpipe Vent	25	
243	RF62S006	HP Heater 6B vent	25	
244	RF62S007	HP Heater 6B vent to Condensor	25	
245	RF62S008	HP heater 6B Vent to atmosphere	15	
246	RF62S009	HP Heater 6B Drain v/v (Reg)	50	
247	RF62S010	HP Heater 6B Hydraulic test connection	50	
248	RF62S011	HP Heater 6B standpipe filling	25	
249	RF62S014	HP Heater 6B Standpipe bottom isolation	80	
250	RF62S015	HP Heater 6B Drain v/v	50	
251	RF50S002	Extraction 5 Bled steam Drain valve	25	
252	RF50S003	Extraction 5 Drain valve	25	
253	RF60S001	Drain upstream HP Heaters 6A/6B	25	
254	RH30S003	Extraction 3 Bled steam drain valve	40	
255	RH10S001	LP Heater 1 Bled Steam Inlet Drain To Condenser	25	
256	RH20S001	LP Heater 2 Bled steam Inlet Drain to Condenser	25	
257	RH30S002	LP Heater 3 Bled steam Inlet Drain valve to condensor	25	
258	RH40S006	Extraction 4A Bled steam drain valve	40	
259	RH40S007	Extraction bypass to Feed water tank NRV	125	
260	RH40S008	Extraction bypass to Feed water tank NRV	125	
261	RH40S009	Extraction 4A FWT Drain valve	65	
262	RH40S010	FWT Bled steam pipe drain trap isol valve	25	
263	RH40S016	FWT Stand Pipe 1 Top Isol Valve	80	
264	RH40S017	FWT Standpipe 1 drain valve	25	
265	RH40S018	Feed water tank standpipe 1 vent	25	
266	RH40S019	FWT Standpipe 2 drain valve	25	
267	RH40S020	FWT Standpipe 2 vent	25	
268	RH40S021	FWT vent valve to tundish	50	
269	RH40S022	FWT Vent to tundish	50	
270	RH40S024	Extraction to FWT Drain	25	
271	RH40S025	Vent to stork spray	25	
272	RH40S026	Vent to stork spray	25	
273	RH40S027	Extraction 4A Bled Steam Drain Isol valve	25	
274	RH40S029	Feed water tank standpipe 1 bottom isolating valve	80	
275	RH40S030	Feed Water Tank to tundish	50	
276	RH40S031	Feed Water Tank to tundish	50	
277	RH45S002	Extraction 4B to BFPT isol v/v	500	
278	RH45S003	Extraction 4B Bled steam drain valve	40	
279	RH45S004	BFPT Bled steam Emergency stop valve drain valve	40	
280	RH45S005	Extraction 4B Bled steam drain isol valve	15	
281	RH45S007	BFPT Bled steam ESV drain trap isol valve	15	
282	RH45S009	Extraction 4B to BFPT Isol Bypass v/v	50	
283	RL00S001	Feed pump discharge drain isol valve	25	
284	RL00S002	Feed pump discharge vent isol valve	15	
285	RL00S003	Feed pump discharge drain regulating valve	25	
286	RL00S004	Feed pump discharge vent regulating valve	15	
287	RL01S001	EFP A Suction isol v/v	300	
288	RL01S005	EFP A Suction Pipe vent valve	25	
289	RL01S006	EFP A Suction Balance Main Isol Valve	100	
290	RL01S007	EFP A Main pump inlet strainer drain isolating valve	50	

291	RL01S008	EFP A Discharge drain valve	25	
292	RL01S009	Feed pump Balance Main vent valve	25	
293	RL01S011	EFP A Booster Pump Inlet Strainer Air Release	15	
294	RL01S012	EFP A Main pump inlet strainer drain regulating valve	50	
295	RL01S013	EFP A Discharge drain regulating valve	25	
296	RL02S001	EFP B Suction isol v/v	300	
297	RL02S005	EFP B Suction pipe vent valve	25	
298	RL02S006	EFP B Suction Balance Main Isol Valve	100	
299	RL02S007	EFP B Main pump inlet strainer drain isolating valve	50	
300	RL02S008	EFP B Discharge drain valve	25	
301	RL02S010	EFP B Booster Pump Inlet Strainer Air Release	15	
302	RL02S011	EFP B Main pump inlet strainer drain regulating valve	50	
303	RL02S012	EFP B Discharge drain regulating valve	25	
304	RL03S001	BFPT Suction isol.	500	
305	RL03S004	BFPT Suction pipe vent valve	25	
306	RL03S005	BFPT Suction Balance Main Isol Valve	100	
307	RL03S010	BFPT Main pump inlet strainer drain regulating valve	50	
308	RL03S011	BFPT Main Pump Discharge drain regulating valve	25	
309	RL10S008	HP Heater 5A FW inlet Drain v/v isol	25	
310	RL10S009	HP Heater 5A FW outlet Drain v/v isol	25	
311	RL10S010	HP Heater 6A FW outlet drain v/v isol	25	
312	RL10S011	HP heater 6A FW outlet vent v/v	15	
313	RL10S012	A Line HP Heaters inl Section Drain isol	15	
314	RL10S013	A line HP Heaters FW out Sect Drain (isol)	15	
315	RL10S014	A-line HP Heater Hydraulic test connection	25	
316	RL10S015	HPH 5A FW Inlet Drain Valve Regulating	25	
317	RL10S016	HP Heater 5A FW outlet Drain reg v/v.	25	
318	RL10S017	HP Heater 6A FW outlet Drain reg v/v	25	
319	RL10S018	HP Heater 6A FW outlet vent v/v (reg)	15	
320	RL10S019	A line HP Heaters Inlet Section Drain Reg	15	
321	RL10S020	A-line HP Heater outlet Section Drain (Reg)	15	
322	RL20S008	HP Heater 5B FW inlet Drain (isol)	25	
323	RL20S009	HP Heater 5B FW outlet Drain (isol)	25	
324	RL20S010	HP Heater 6B FW outlet Drain Isol	25	
325	RL20S011	HP Heater 6B FW outlet vent (isol)	15	
326	RL20S012	B-Line HP Heater FW inlet Sect Drain (isol)	15	
327	RL20S013	B-Line HP heater outlet section drain valve	15	
328	RL20S014	B Line HP Heater Hydraulic Test Connection	25	
329	RL20S015	HP Heater 5B FW inlet Drain (reg)	25	
330	RL20S016	HP Heater 5B outlet Drain (reg)	25	
331	RL20S017	HP Heater 6B FW outlet Drain (reg)	25	
332	RL20S018	HP Heater 6B FW outlet vent (regl)	15	
333	RL20S019	B-Line HP Heater FW inlet Sect Drain Reg	15	
334	RL20S020	B-line HP Heater outlet section drain Reg	15	
335	RL30S001	HP Heater bypass Master Drain v/v	25	
336	RL30S002	HP Heater Bypass Slave drain	25	
337	RL51S003	EFP A Leak-off NRV	100	
338	RL51S004	EFP A Leak-off isolating valve	100	
339	RL51S005	EFP A Leak-off drain valve	25	
340	RL52S003	EFP B Leak-off NRV	100	
341	RL52S004	EFP B Leak-off isolating valve	100	
342	RL52S005	EFP B Leak-off drain valve	25	

343	RL53S004	BFPT Leak-off NRV	150	
344	RL53S005	BFPT Leak-off isolating valve	150	
345	RL53S006	BFPT Leak-off drain valve	25	
346	RP51S001	HP Heater 5 A Drain to Feed water tank NRV	250	
347	RP51S002	HP Heater 5A Drain to FWT isol v/v	250	
348	RP51S004	HP Heater 5A drain to FWT isolating valve	300	
349	RP51S005	HP Heater 5A Drain to FWT pipe Drain	25	
350	RP51S006	HP Heater Drain to FWT Vent	15	
351	RP52S001	HP Heater 5B Drain to Feed water tank NRV	250	
352	RP52S002	HP Heater 5B to FWT Isol v/v	250	
353	RP52S004	HP Heater 5B Drain to FWT isolating valve	300	
354	RP52S005	HP Heater to FWT pipe drain	25	
355	RP52S006	HP Heater 5B Drain to FWT vent	15	
356	RP53S002	HP Heater 5A to Condenser Drain v/v	25	
357	RP53S003	HP Heater 5A to Condenser Drain	25	
358	RP54S002	HP Heater 5B to condenser drain	25	
359	RP54S003	HP Heater 5B to condenser drain	25	
360	RP63S002	HP Heater 6A Drain to Condenser Pipe Drain	25	
361	RP63S003	HP Heater 6A Drain to condensor pipe drain	25	
362	RP64S002	HP Heater 6B Drain to Condenser pipe drain	25	
363	RP64S003	HP Heater 6B Drain to Condensor Pipe Drain	25	
364	RQ00S002	Auxiliary steam header drain valve	25	
365	RQ00S003	Auxiliary steam header drain trap inlet valve	25	
366	RQ10S001	FWT Warming steam isol v/v	200	
367	RQ10S003	Feed water start up NRV	200	
368	RQ10S004	Auxiliary steam to feed water tank NRV	65	
369	RQ10S005	DST Warming steam isol valve bypass	25	
370	RQ10S006	DST Warming steam pipe drain	25	
371	RQ10S008	Feed water Tank start-up emergency NRV	200	
372	RQ20S001	Main turbine Gland steam Isolating valve	100	
373	RQ20S002	Main turbine Gland steam pipe drain valve	25	
374	RQ25S001	Turbine Warming Aux Steam Valve	150	
375	RQ30S005	Unit 1 BBDV aux steam Drain	25	
376	RQ30S021	Unit 1 BBDV aux steam Drain	25	
377	RQ30S022	Unit 1 BBDV aux steam Drain	25	
378	RQ31S001	Aux steam header unit isolating v/v	300	
379	RQ31S002	Auxiliary steam Pre-warming drain valve	25	
380	RQ31S003	Auxiliary steam pre-warming drain valve	25	
381	RQ31S004	Auxiliary steam header drain trap inlet valve	25	
382	RQ31S006	Aux steam unit header isolating v/v	300	
383	RQ31S007	Auxiliary steam unit header vent isol valve	25	
384	RQ31S008	Auxiliary steam unit heater vent valve	25	
385	RQ50S002	BFPT Quick Start eject pipe drain inlet valve	15	
386	RQ51S001	BFPT Gland steam isol v/v	50	
387	RQ60S001	Extraction 5 Aux Steam Isol Units 1 and 2	150	
388	RQ60S031	Extraction 5 Aux Steam Strainer Drain	40	
389	RQ61S001	Turbine Warming Header Steam valve	150	
390	RQ61S002	Extraction 5 Aux steam Unit header NRV	150	
391	RQ61S003	Extraction 5 Aux steam vent valve	100	
392	RQ61S004	Extraction 5 Aux steam isolating valve	150	
393	RQ61S005	Auxiliary Steam Header 2 Valve	150	
394	RQ61S006	Auxiliary Steam Header 2 Bypass Valve	40	

395	RQ61S007	Extraction 5 Auxiliary Steam NRV	150	
396	RQ61S008	Extraction 5 Auxiliary Steam Isol Section Vent Valve Isol	25	
397	RQ61S009	Extraction 5 Auxiliary Steam Isol Section Vent Valve	25	
398	SA11S150	IP Cooling Cold Steam	40	
399	SA11S151	Casing warming header drain	15	
400	SA11S152	Casing warming header drain	25	
401	SA11S552	HP Casing Heating NRV	100	
402	SA11S553	Turbine Warming Aux Steam NRV	150	
403	SA11Z101	IP Casing heating screen insert	100	
404	SA11Z102	IP Casing heating screen insert	100	
405	SA12S053	IP Cooling hot steam valve	80	
406	SA12S054	IP Cooling isolating valve	65	
407	SA12S552	IP Casing heating NRV	100	
408	SA51S013	BFPT control v/v 2 heating line isol valve	50	
409	SG20S003	Leak Steam Overflow Reg Valve	200	
410	SG20S703	Gland Steam NRV to Turbine Valves	300	
411	SG22S005	Gland steam isolating valve	80	
412	SG24S110	Turbine Gland Steam Temp Reg Isol Valve 1	25	
413	SG24S210	Spray Nozzle 1 Isol Valve	20	
414	SG24S211	Spray Nozzle 2 Isol Valve	20	
415	SG24S510	Gland Steam Cooler Inlet Check Valve	25	
416	SG60S001	BFPT Gland Steam Pressure Reg Valve	40/125	
417	SG60S503	BFPT Overflow Throttle Damper	50	
418	SG61S123	BFPT Gland Steam Condenser Auxiliary Damper	50	
419	SG61S720	BFPT GSC Gland / Steam Exhaust to Atm. NRV	150/200	
420	SG61S921	BFPT GSC Extractor NRV	125/80	
421	SG62S005	BFPT Seal Steam Start Up Valve	40	
422	SH10S001	HP Turbine inlet drain valve	25	
423	SH10S009	HP Chest Warming Valve 1	80	
424	SH10S010	HP Chest Warming valve 2	80	
425	SH10S011	IP Turbine inlet drain valve	25	
426	SH10S012	IP Cooling Mixing drain valve	25	
427	SH10S013	IP Cooling pipe drain valve	25	
428	SH10S019	IP Chest Warming valve 1	100	
429	SH10S020	IP Chest Warming valve 2	100	
430	SH10S052	Gland steam warming valve	65	
431	SH10S053	Auxiliary Steam Warming valve	25	
432	SH10S101	HP Turbine inlet Drain valve	15	
433	SH10S109	HP Chest Warming drain valve 1	15	
434	SH10S110	HP Chest Warming drain valve 2	15	
435	SH10S111	IP Turbine inlet drain valve	15	
436	SH10S112	IP Cooling Mixing drain valve	15	
437	SH10S113	IP Cooling Mixing pipe drain valve	15	
438	SH10S119	IP Chest Warming drain valve 1	15	
439	SH10S120	IP Chest Warming drain valve 2	15	
440	SH10S156	Gland Steam Condensate drain valve	50	
441	SH10S553	Drain Line NRV	40	
442	SH50S001	BFPT CRH ESV Warming valve	50	
443	SH50S002	BFPT Bled steam ESV Warming valve	25	
444	SH50S003	BFPT Casing Drain Valve	25	
445	SH50S102	BFPT Bled steam ESV Warming drain isol valve	15	
446	SH50S104	BFPT Seal steam drain valve	15	

447	SH50S152	BFPT Gland Steam Warming Drain Isol	25	
448	SH50S156	BFPT GSC Drain Isol to Steam Trap	25	
449	SO10S005	HP Chest warming valve 1	150	
450	SO10S105	Heating Steam Pipe	150	
451	SO10S505	Heating Line Check Valve	150	
452	RM71S002	BFPT CEP A discharge NRV	125	
453	RM72S002	BFPT CEP B discharge NRV	125	
454	RN10S001	LP heater 1 Drain Pump A Suction iso v/v	350	
455	RN10S002	LP heater 1 Drain pump A NRV	150	
456	RN10S003	LP heater 1 Drain pump A discharge iso v/v	250	
457	RN10S004	LP heater 1 Drain pump B Suction iso v/v	350	
458	RN10S005	LP heater 1 Drain pump B NRV	150	
459	RN10S006	LP heater 1 Drain pump B discharge iso v/v	250	
460	RN31S002	LP heater 3 DST drain v/v	25	
461	RQ40S002	Start eject pipe drain trap inlet valve	15	
462	RQ50S002	BFPT start eject pipe drain trap inlet valve	15	
463	RQ60S003	Extraction 5 Aux steam isolating valve	150	
464	RQ60S032	Extraction 5 Aux steam drain v/v	50	
467	RM73S001	BFPT condensate recirc valve	80	

Turbine General valves to be refurbished during IRs and MGOs:

No.	AKZ No.	Description	Price (EA)
1	RH10S002	LP Heater 1 Standpipe top isolating valve	
2	RH10S003	LP Heater 1 Standpipe drain valve	
3	RH10S004	LP Heater 1 Standpipe vent valve	
4	RH10S005	LP Heater 1 Vent to Condenser	
5	RH10S006	LP Heater 1 Vent to Condenser	
6	RH10S009	Make-up Water Heater Bled Steam Isol	
7	RH10S010	Make-up Water Heater Vent to Condenser	
8	RH10S011	LP Heater 1 Standpipe bottom isolating valve	
9	RH20S002	LP Heater 2 Standpipe top isolating valve	
10	RH20S003	LP Heater 2 Standpipe drain valve	
11	RH20S004	LP Heater 2 Standpipe vent valve	
12	RH20S005	LP heater 2 Vent to Condensor	
13	RH20S006	LP heater 2 Vent to Condensor	
14	RH20S009	LP heater 2 Stand Pipe Bottom Isol Valve	
15	RH30S004	LP Heater 3 Standpipe top isolating valve	
16	RH30S005	LP Heater 3 Standpipe drain valve	
17	RH30S006	LP Heater 3 Standpipe vent valve	
18	RH30S007	LP Heater 3 Vent to condenser	
19	RH30S008	LP Heater 3 Vent to condenser	
20	RH30S012	LP Heater 3 Standpipe bottom isolating valve	
21	RN10S006	LP Heater 1 Drain Pump B Discharge Isol	
22	RN10S008	LP Heater 1 Drain Pump Condensate Inlet Isol Valve	
23	RN10S009	LP Heater 1 Drain Pumps Suction Drain	
24	RN10S010	LP Heater 1 Drain Pump A Suction Vent to LP Htr 1	
25	RN10S011	LP Heater 1 Drain Pump B Suction Vent REG valve	
26	RN10S012	LP Heater 1 discharge vent valve	
27	RN10S014	LP Heater 1 drain pump discharge drain valve	
28	RN10S015	LP Heater 1 Drain Pump A Leak Off NRV	

29	RN10S016	LP Heater 1 drain pump A Leak Off Isol	
30	RN10S017	LP Heater 1 Drain Pump B Leak Off NRV	
31	RN10S018	LP Heater 1 drain pump B Leak Off Isol	
32	RN10S019	LP Heater 1 Drain Pumps leak-off drain valve	
33	RN11S001	LP Heater 1 Barometric Loop Drain	
34	RN11S002	LP Heater 1 Barometric Loop Test Point	
35	RN12S001	Make-up water heater drain to LP heater 1	
36	RN12S002	Make-up water Heater hydraulic test Connection	
37	RN20S001	LP Heater 2 to LP Heater 1 dist isol. v/v	
38	RN21S002	LP Heater 2 Dist drain valve	
39	RU10S002	Feed water tank drain isolating valve	
40	RN30S001	LPH 3 to LPH 2 Dist Isol Valve	
41	RU20S001	Expansion vessel drain to condenser isolating valve	
42	RU20S006	Expansion Vessel Emergency overflow water to pit	
43	RM00S016	LP Heater 1 inlet drain valve	
44	RM00S017	LP Heater 1 outlet vent valve	
45	RM00S018	LP Heater 2 inlet drain valve	
46	RM00S019	LP Heater 2 outlet vent valve	
47	RM00S020	LP Heater 3 inlet drain valve	
48	RM00S021	LP Heater 3 outlet vent valve	
49	RM00S022	LP Condenser Hotwell Drain	
50	RM00S023	Gland steam Condenser Inlet vent valve	
51	RM00S024	Gland steam condenser Inlet drain valve	
52	RM00S025	Gland Steam Condenser Inlet Bypass Isol Valve	
53	RM00S026	LPH 1 Inlet bypass Isol Valve	
54	RM00S027	LPH 2 Inlet bypass Isol Valve	
55	RM00S028	LPH 3 Inlet Bypass Isol Valve	
56	RM00S029	LP Heater 1 Hydraulic test connection	
57	RM00S033	LP Heaters condensate drain	
58	RM04S008	LP Heater Seal Water Isol Valve	
59	RM04S009	LP Heater Seal Water Isol Valve	
60	RM04S010	LP Heater Seal Water Isol Valve	
61	RM04S011	LP Heaters Stand Pipe Filling NRV	
62	RM04S012	HP Heater 6A / 6B Stand Pipe Filling NRV	
63	RM04S013	HP Heater 5A / 5B Stand Pipe Filling NRV	
64	RM04S014	Seal Water to CEP A Isol Valve	
65	RM04S015	Seal Water to CEP B Isol Valve	
66	RM04S016	Filler Pipe to Loop LPH 1	
67	RM04S017	LPH 1 Drain Pump A Seal Water Isol Valve	
68	RM04S018	LPH 1 Drain Pump B Seal Water Isol Valve	
69	RM04S019	Expansion Vessel Stand Pipe Filling	
70	RM50S002	LPH3 Bypass Hydraulic Test	
71	RM40S002	LPH 2 Bypass Isolation	
72	UG53S001	Make-up water valve 4 nozzle	
73	UG53S008	Make-up water valve 2 nozzle	
74	RB00S100	Hot reheat drain stop valve	
75	RB00S101	Hot reheat drain valve	
76	RC01S002	Cold reheat 1 drain stop valve	
77	RC01S003	Cold reheat drain valve 1	
78	RC02S002	Cold reheat 2 drain stop valve	
79	RC02S003	Cold reheat drain valve 2	

81	RC20S002	BFPT Cold reheat motorised drain valve	
85	RF51S005	HP Heater 5A Standpipe vent	
86	RF51S006	HP Heater 5A vent	
87	RF51S007	HP Heater 5A vent to condensor	
88	RF51S008	HP Heater 5A Vent to Atmosphere	
89	RF51S009	HP Heater 5A Drain (regulating)	
90	RF51S012	HP Heater 5A BSV inlet Drain trap isol	
91	RF51S014	HP Heater 5A Standpipe bottom isol	
92	RF51S015	HP Heater 5A Drain Isol	
94	RF52S003	HP Heater 5B Standpipe top isolation	
95	RF52S004	HP Heater 5B standpipe drain	
96	RF52S005	HP Heater 5B Standpipe Vent	
97	RF52S006	HP Heater 5B Vent	
98	RF52S007	HP Heater vent to condensor	
99	RF52S008	HP Heater 5B Vent to atmosphere	
100	RF52S009	HP Heater 5B Drain v/v (reg.)	
101	RF60S002	LPH 6B Vent	
102	RF61S012	LPH 6B Vent	
103	RF62S012	LPH 6B Vent	
104	RF62S013	LPH 6B Vent	
105	RF52S014	HP Heater 5B Standpipe bottom isol	
106	RF52S015	HP Heater 5B Drain v/v (isol)	
108	RF61S003	HP Heater Standpipe top isol v/v	
109	RF61S004	HP Heater 6A Standpipe drain v/v	
110	RF61S005	HP Heater 6A Standpipe vent	
111	RF61S006	HP Heater 6A vent	
112	RF61S007	HP heater 6A vent to Condensor	
113	RF61S008	HP Heater 6A vent to Atmosphere	
114	RF61S009	HP Heater 6A Drain (reg)	
115	RF51S003	HP Heater 5A Standpipe Top Iso Valve	
116	RF51S004	HP Heater 5A Standpipe drain v/v	
117	RF61S014	HP heater 6A standpipe bottom isol	
118	RF61S015	HP Heater 6A Drain isol	
120	RF62S003	HP Heater 6B Standpipe top isol v/v	
121	RF62S004	HP Heater 6B Standpipe Drain v/v	
122	RF62S005	HP Heater 6B Standpipe Vent	
123	RF62S006	HP Heater 6B vent	
124	RF62S007	HP Heater 6B vent to Condensor	
125	RF62S008	HP heater 6B Vent to atmosphere	
126	RF62S009	HP Heater 6B Drain v/v (Reg)	
128	RF62S011	HP Heater 6B standpipe filling	
129	RF62S014	HP Heater 6B Standpipe bottom isolation	
130	RF62S015	HP Heater 6B Drain v/v	
131	RF50S002	Extraction 5 Bled steam Drain valve	
132	RF50S003	Extraction 5 Drain valve	
133	RF60S001	Drain upstream HP Heaters 6A/6B	
134	RH10S001	LP Heater 1 Bled Steam Inlet Drain To Condenser	
135	RH20S001	LP Heater 2 Bled steam Inlet Drain to Condenser	
136	RH30S002	LP Heater 3 Bled steam Inlet Drain valve to condensor	
137	RH40S003	Extraction 4A Bled Steam Isolating Valve	
138	RH45S002	Extraction 4B to BFPT isol v/v	

139	RH45S004	BFPT Bled steam Emergency stop valve drain valve	
140	RL01S001	EFP A Suction isol v/v	
143	RL01S006	EFP A Suction Balance Main Isol Valve	
144	RL02S001	EFP B Suction isol v/v	
147	RL02S006	EFP B Suction Balance Main Isol Valve	
148	RL03S001	BFPT Suction isol.	
150	RL03S005	BFPT Suction Balance Main Isol Valve	
151	RL03S113	Main Pump Air Release	
155	RL10S008	HP Heater 5A FW inlet Drain v/v isol	
156	RL10S009	HP Heater 5A FW outlet Drain v/v isol	
157	RL10S010	HP Heater 6A FW outlet drain v/v isol	
158	RL10S011	HP heater 6A FW outlet vent v/v	
159	RL10S012	A Line HP Heaters inl Section Drain isol	
160	RL10S013	A line HP Heaters FW out Sect Drain (isol)	
161	RL10S014	A-line HP Heater Hydraulic test connection	
162	RL10S015	HPH 5A FW Inlet Drain Valve Regulating	
163	RL10S016	HP Heater 5A FW outlet Drain reg v/v.	
164	RL10S017	HP Heater 6A FW outlet Drain reg v/v	
165	RL10S018	HP Heater 6A FW outlet vent v/v (reg)	
166	RL10S019	A line HP Heaters Inlet Section Drain Reg	
167	RL10S020	A-line HP Heater outlet Section Drain (Reg)	
180	RL20S008	HP Heater 5B FW inlet Drain (isol)	
181	RL20S009	HP Heater 5B FW outlet Drain (isol)	
182	RL20S010	HP Heater 6B FW outlet Drain Isol	
183	RL20S011	HP Heater 6B FW outlet vent (isol)	
184	RL20S012	B-Line HP Heater FW inlet Sect Drain (isol)	
185	RL20S013	B-Line HP heater outlet section drain valve	
186	RL20S014	B Line HP Heater Hydraulic Test Connection	
187	RL20S015	HP Heater 5B FW inlet Drain (reg)	
188	RL20S016	HP Heater 5B outlet Drain (reg)	
189	RL20S017	HP Heater 6B FW outlet Drain (reg)	
190	RL20S018	HP Heater 6B FW outlet vent (regl)	
191	RL20S019	B-Line HP Heater FW inlet Sect Drain Reg	
192	RL20S020	B-line HP Heater outlet section drain Reg	
202	RL30S001	HP Heater bypass Master Drain v/v	
203	RL30S002	HP Heater Bypass Slave drain	
204	RL51S003	EFP A Leak-off NRV	
206	RL52S003	EFP B Leak-off NRV	
207	RL53S004	BFPT Leak-off NRV	
212	RP51S001	HP Heater 5 A Drain to Feed water tank NRV	
213	RP51S002	HP Heater 5A Drain to FWT isol v/v	
214	RP51S004	HP Heater 5A drain to FWT isolating valve	
215	RP51S005	HP Heater 5A Drain to FWT pipe Drain	
216	RP51S006	HP Heater Drain to FWT Vent	
217	RP52S001	HP Heater 5B Drain to Feed water tank NRV	
218	RP52S002	HP Heater 5B to FWT Isol v/v	
219	RP52S004	HP Heater 5B Drain to FWT isolating valve	
220	RP52S005	HP Heater to FWT pipe drain	
221	RP52S006	HP Heater 5B Drain to FWT vent	
222	RP53S002	HP Heater 5A to Condenser Drain v/v	
223	RP53S003	HP Heater 5A to Condenser Drain	

224	RP54S002	HP Heater 5B to condenser drain	
225	RP54S003	HP Heater 5B to condenser drain	
226	RP63S002	HP Heater 6A Drain to Condenser Pipe Drain	
227	RP63S003	HP Heater 6A Drain to condensor pipe drain	
228	RP64S002	HP Heater 6B Drain to Condenser pipe drain	
229	RP64S003	HP Heater 6B Drain to Condensor Pipe Drain	
230	RQ10S001	FWT Warming steam isol v/v	
231	RQ10S003	Feed water start up NRV	
232	RQ10S004	Auxiliary steam to feed water tank NRV	
233	RQ10S008	Feed water Tank start-up emergency NRV	
234	RQ20S001	Main turbine Gland steam Isolating valve	
235	RQ20S002	Main turbine Gland steam pipe drain valve	
236	RQ25S001	Turbine Warming Aux Steam Valve	
237	RQ31S001	Aux steam header unit isolating v/v	
238	RQ40S001	Steam Ejector Steam Valve	
239	RQ50S001	BFPT Ejector Steam Valve	
240	SH10S001	HP TRB Inlet Drain Valve	
241	SH10S010	HP Chest Warming valve 2	
242	SH10S011	IP Turbine inlet drain valve	
243	SH10S012	IP Cooling Mixing drain valve	
244	SH10S013	IP Cooling pipe drain valve	
245	SH10S019	IP Chest Warming valve 1	
246	SH10S020	IP Chest Warming valve 2	
247	SH10S052	Gland steam warming valve	
248	SH10S053	Auxiliary Steam Warming valve	
249	SH10S009	HP Chest Warming valve	

Turbine General valves to be refurbished during opportunity maintenance:

No.	Akz number		Description	Price (EA)
1	RM70S009		BFPT Condenser Hot well Drain	
2	RF51S003		HP heater 5A standpipe top isol v/v	
3	RF62S003		HP Heater 5B Standpipe bottom isol	
4	RL01S006		EFP A Suction balance main isol v/v	
5	RL02S006		EFP B Suction balance main isol v/v	
6	RL03S005		BFPT Suction balance main isol v/v	
7	RC01S002		Cold reheat 1 drain stop valve	
8	RC02S002		Cold reheat 2 drain stop valve	
9	RC01S003		Cold reheat drain valve 1	
10	RC02S003		Cold reheat drain valve 2	
12	RQ61S003		Extraction 5 Aux steam vent valve	
13	RB00S101		Hot reheat drain valve	
14	RB00S100		Hot reheat stop valve	
15	SH10S019		IP Chest Warming valve 1	
16	SH10S020		IP Chest Warming valve 2	
17	RM00S022		LP Condenser Hotwell Drain	
18	RM71S003		BFPT CEP A Discharge Isolation	
19	RM72S003		BFPT CEP B Discharge Isolation	
20	RM70S010		BFPT Condensate Inlet to Main Condenser Isolating	
21	RQ61S001		Aux. Steam unit Header isolating valve	

22	RQ60S001		Auxiliary steam header 2 vlv 1	
23	RQ61S005		Extraction 5 Aux steam isolating valve	
24	RQ61S007		Extraction 5 Aux steam NRV	
25	SO10S105		Heating Steam Pipe	
26	SO10S005		HP Chest warming valve 1	
27	RM71S001		BFPT CEP A Suction Isolation	
28	RM72S001		BFPT CEP B Suction Isolation	
29	RU21S001		Expansion Vessel Drain Pump A Suction Isol	
30	RU22S001		Expansion Vessel Drain Pump B Suction Isol	
31	RU20S006		Expansion Vessel Emergency overflow water to pit	
32	RQ10S008		Feed water Tank start-up emergency NRV	
33	RU10S002		FWT drain isolating valve	
34	RU10S003		FWT Overflow Isol valve	
35	RU10S001		FWT Overflow reg valve	
36	RQ10S001		FWT Warming steam isol v/v	
37	SG20S003		Leak Steam Overflow Reg Valve	
38	RM06S002		FWT Low limit emergency Reg v/v	
39	RP51S001		HP Heater 5 A Drain to Feed water tank NRV	
40	RP51S002		HP Heater 5A Drain to FWT isol v/v	
41	RP52S001		HP Heater 5B Drain to Feed water tank NRV	
42	RP52S002		HP Heater 5B Drain to FWT Isol v/v	
43	RN10S008		LP Heater 1 Drain Pump Condensate Inlet Isol Valve	
44	RN20S001		LP Heater 2 to LP Heater 1 dist isol. v/v	
45	RQ31S001		Aux steam header unit isolating v/v	
46	RQ31S006		Aux steam unit header isolating v/v	
47	RM05S002		CRT Dumping from Condensate NRV	
48	RL01S001		EFP A Suction isol v/v	
49	RL02S001		EFP B Suction isol v/v	
50	SG20S703		Gland Steam NRV to Turbine Valves	
51	RP51S004		HP Heater 5A drain to FWT isolating valve	
52	RP52S004		HP Heater 5B Drain to FWT isolating valve	
53	RM00S014		Condensate to feed water tank inlet NRV	
54	RM00S015		Condensate to feed water tank inlet NRV	
55	RH10S009		Make-up Water Heater Bled Steam Isol	
56	RM01S003		CEP A Discharge Isol Valve	
57	RM01S002		CEP A Discharge NRV	
58	RM02S003		CEP B Discharge Isol Valve	
59	RM02S002		CEP B Discharge NRV	
60	RM30S001		LPH 1 Bypass Isol Valve	
61	RM40S001		LPH 2 Bypass Isol Valve	
62	RL03S001		BFPT Suction isol.	
63	RM00S032		Condensate to LPH1 NRV	
64	RH45S002		Extraction 4B to BFPT isol v/v	
65	RM00S001		Gland Steam Condenser Inlet Isol Valve	
66	RM00S002		Gland Steam Condenser Outlet Isol Valve	
67	RM10S001		GSC bypass Isol Valve	
68	RM00S005		LPH 1 Inlet Isol Valve	
69	RM00S006		LPH 1 Outlet Isol Valve	
70	RM00S008		LPH 2 Inlet Isol Valve	
71	RM00S009		LPH 2 Outlet Isol Valve	
72	RM00S011		LPH 3 Inlet Isol Valve	
73	RM00S012		LPH 3 Outlet Isol Valve	

74	RM06S001		Condensate Reserve Tank Outlet v/v	
75	RM01S001		CEP A Suction Isol Valve	
76	RM02S001		CEP B Suction Isol Valve	

Contingency value for maintenance call out's:			
NORMAL TIME	R/Hr	Hrs	Value
Site Manager		312	
Site Supervisor		312	
Safety Officer		312	
Fitter		936	
Assistant		936	
Rigger		312	
OVERTIME			
Site Manager		96	
Site Supervisor		96	
Safety Officer		96	
Fitter		288	
Assistant		288	
Rigger		96	
PUBLIC HOLIDAYS/SUNDAYS			
Site Manager		96	
Site Supervisor		96	
Safety Officer		96	
Fitter		288	
Assistant		288	
Rigger		96	
Sub Total labour for call out's (maintenance)			
Call out Preliminaries & Generals			
Traveling per Km per vehicle		10800	
Accommodation		840	
Consumables (Gaskets & Packings)		2	
Sub Total for call out's:			

Unit On Outage	Type of Outage	Planned Start Date	Total Per Outage
4	IR	2026/01/16	
1	GO	2026/08/10	
3	MGO	2027/01/25	
5	IR	2027/08/09	
4	MGO	2027/08/09	
6	IR	2027/08/09	
2	IR	2028/02/07	
1	IR	2028/09/11	
3	IR	2029/02/05	
5	MGO	2029/08/06	
2	MGO	2029/12/06	
5	IR	2029/08/15	
Once Off Site Establishment			
TOTAL CONTRACT VALUE (OUTAGES)			
TOTAL CONTRACT VALUE (MAINTENANCE)			
TOTAL CONTRACT VALUE (OUTAGE & MAINTENANCE)			

SUPPLIER:		
.....
PRINT NAME	SIGNATURE	DATE

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Service Information</i>	
C3.2	<i>Contractor's Service Information</i>	
	Total number of pages	

C3.1: EMPLOYER'S SERVICE INFORMATION

Description of the service

Scope of work for General valves

1. Work to be performed by the contractor

Data books and calibration certificated to be supplied by the contractor where applicable. All work on Eskom general valves should comply with the standards as listed below where applicable:

No.	REFERENCE NUMBER	DOCUMENT TITLE
1	240-83539994	Standard for Non-Destructive Testing (NDT) on Eskom Plant
2	SANS 347	Categorization and conformity assessment criteria for all pressure equipment
3	240-106628253	Standard for welding requirements on Eskom Plant
4	240-83540088	Requirements for Non-Destructive Testing (NDT) on Eskom Plant
5	ISO 9001 and ISO 9002	Quality Management System
6	SANS 10257	The reconditioning of valves for use with pipelines
7	BS EN 1092 -1:2007	Flanges and their joints circular flanges for piping, valves, fittings and accessories, PN designation.
8	BS EN 13480 - 3:2012	Metallic Industrial Piping Part 3 Design and calculation
9	240-86546783	Procurement standard for material certification requirements applicable to metallic products used on low and medium pressure applications
10	240-105020315	Standard for low pressure valves
11	36-1126	Specification for corrosion protection of plant and equipment with coatings
12	240-76667211	Outage Management Foreign Material Exclusion Standard

2. Details of Tasks

- Maintenance and repair of Turbine High Pressure / High Temperature and General Valves and fittings must comply with Eskom Standard 240-84979413
- Identification and tag of valves.
- Removal of actuators.
- Stripping of valves. The *Contractor* is responsible for all components removed from the valves. These must be stored in a safe place to prevent theft and must be labelled so that they can be returned to the same valve from which they were removed.
- Cleaning and inspection of valve and components. The inspection of valves must include the following items truth check spindles, surface finish inspection, dimension checks and record all in a check sheet. The thread on the spindles must be cleaned and any burrs removed. Any solvents used will be subject to Eskom approval and disposal will be according to Eskom procedure.
- Valve cleanliness checks.
- The valve must be fully stripped so that it can be inspected internally to ensure that it is free from dirt or grit.

- Recommendations must be made as to work required and parts needing replacement or refurbishment. If NDE is necessary, this will be at the approval of the *Employer's Representative*.
- Components to be measured (components to be measured will be discussed with the Employer's Representative).
- Machine lapping on discs or valve heads and body seats.
- Lapping of the valve seats to be done when require. In addition, blue check the valve seats. Eskom representative to check and approve blueing. Seats to be measured to verify the flatness of them.
- Fitting new gaskets, pressure seals and gland packing.
- Valve assembly and perform functional test of the valves.
- Installation or replacement of actuators.
- The *Contractor* must control all replacement parts supplied by Eskom. All unused components and damaged components that have been replaced must be returned to the *Employer's Representative*.
- Documentation to be completed and submitted to the *Employer's Representative*. All documentation must indicate the AKZ of the valve, the valve serial number, the valve size, manufacturer, and type. The documentation required includes the signed copy of the quality inspection plan and the inspection report. The inspection report must include the following:
 - Any visual defects
 - Findings of NDE
 - Parts replaced including the part number and stock number where applicable, dimensions of consumable parts.
 - If seats or disks have been machined the seat depth remaining and thickness of material removed must be indicated
 - Recommended actions.
- All test certificates if applicable.
- All valves will be subjected to a required Statutory Hydraulic Pressure Test and must be able to withstand the pressures applied; personnel must be available on site during the pressure test to assist in detecting leaks and for re-packing of valves and tightening of glands where necessary. At least 2 valve fitters and a supervisor / QC inspector will be needed.
- The works are to be completed in accordance with the specifications in all respects and ready for take-over by the Employer's Representative.
- Final inspection to be done with Eskom representative.
- Final submission documentation to be completed two weeks after valve repairs scope of work

3. Lifting of Valves

- All valves with a nominal bore greater than 100mm will require lifting gear. The weight of the valve must be obtained from the relevant valve overhaul maintenance instruction before setting up lifting gear. Use overhead runway beams and travelling trolleys where available for lifting valves. Set up lifting gear to the valve to be removed.

- Proof of lifting certificates to be submitted to the Employer's Representative, whereby the Employer's Representative will assess and certify, prior starting date.
- NB: All opened valves and pipe-works to be covered with FME covers to prevent unwanted dirt to ingress the system. *The Contractor* is responsible to provide its own FME covers and to control the use of the covers. The use of these covers must be as per Outage Management Foreign Material Exclusion Standard 240-76667211.

4. Quality Control

- The *Contractor* who executes a maintenance activity is responsible for the quality of their work. Formal quality control shall be applied as appropriate to all level 1 and 2 plants and to all critical activities on level 3 plants. The quality inspection plan must contain the minimum quality control requirements. Internal quality inspection plans must be numbered according to LMT00001.

5. Quality inspection plans

- Quality inspection plans define the sequence of activities to be performed. The QIP must indicate all associated hold and witness points as well as the person responsible for these activities. All controlling documentation must be indicated as well as the documentation required.

6. Lethabo Quality Control inspectors

- Quality control inspections will be conducted on behalf of Eskom by a quality inspector from Maintenance Support Services Section. The quality inspector must be authorised by the Power Station Maintenance Manager in terms of LMA10002. The inspections will be carried out to provide an assessment of conformance to specification and quality requirements.
- These inspections do not take any responsibility away from the supervisor or artisan performing the work.
- The quality inspector's responsibilities include the following:
 - Reviewing maintenance procedures and work instructions and indicating witness and hold points.
 - Verifying that specified quality requirements have been achieved by inspecting work in progress and indicating acceptance on the quality control plan.
 - Ensuring that quality control plans are completed for all valves overhauled. The quality control plan must be made available by the Employer's Representative prior to commencement of work for review.
 - Ensuring that acceptable maintenance practice and relevant codes, standards and statutory requirements are adhered to.
- The quality inspector has the authority to stop work where an inadequacy threatens the safety of plant or personnel. It is the responsibility of the person performing the activity to inform the quality inspector prior to reaching a witness or hold point. In the case of a major outage the quality inspector must be informed at least one day in advance.

7. Requirements on Welding

- Any welding to be done on the valve body must be confirmed by Eskom QC and/or Eskom Engineering.

- Any welding to be done must only be done by the approved valve bodies welding supplier and the Employer must be notified before the welding is carried out.

8. Items to be supplied by the Employer

The following items will be supplied by the Employer to enable the completion of the scope of work:

- Valve cut-out and re-welding manpower
- The Employer shall supply the replacement parts, except the one's listed below (item 9).

9. Items to be supplied by the contractor

The following items form the minimum requirements for the Contractor and are not limited to:

- Safety equipment
- Lapping paste (fine and course)
- Lapping tools
- Lapping discs (skimmed to ensure integrity of surface and flatness - to be QC checked by Lethabo personnel.
- Valve opening cover devices
- Gasket, packing and pressure seals and consumable fasteners
- Rigging services where applicable

NB- On all pressure seals and gaskets used in the plant, the contractor shall specify the material used and get approval from Eskom representative.

Turbine General valves to be refurbished during GOs:

No.	AKZ No.	Description	Valve Size (mm)
1	RH10S002	LP Heater 1 Standpipe top isolating valve	80
2	RH10S003	LP Heater 1 Standpipe drain valve	50
3	RH10S004	LP Heater 1 Standpipe vent valve	25
4	RH10S005	LP Heater 1 Vent to Condenser	50
5	RH10S006	LP Heater 1 Vent to Condenser	50
6	RH10S007	LP Heater 1 hydraulic test Connection	50
7	RH10S008	LP Heater 1 Stand Pipe Filling valve	15
8	RH10S009	Make-up Water Heater Bled Steam Isol	350
9	RH10S010	Make-up Water Heater Vent to Condenser	25
10	RH10S011	LP Heater 1 Standpipe bottom isolating valve	80
11	RH10L501KA01	LP Heater 1 level Control valve	25
12	RH10L502KA01	Make-up water level control	25
13	RH20S002	LP Heater 2 Standpipe top isolating valve	80
14	RH20S003	LP Heater 2 Standpipe drain valve	50
15	RH20S004	LP Heater 2 Standpipe vent valve	25
16	RH20S005	LP heater 2 Vent to Condensor	50
17	RH20S006	LP heater 2 Vent to Condensor	50
18	RH20S007	LP Heater 2 hydraulic test Connection	50
19	RH20S008	LP heater 2 Stand Pipe Filling	15
20	RH20S009	LP heater 2 Stand Pipe Bottom Isol Valve	80
21	RH20L501KA01	LP Heater 2 level control	25
22	RH30S004	LP Heater 3 Standpipe top isolating valve	80

23	RH30S005	LP Heater 3 Standpipe drain valve	50
24	RH30S006	LP Heater 3 Standpipe vent valve	25
25	RH30S007	LP Heater 3 Vent to condenser	50
26	RH30S008	LP Heater 3 Vent to condenser	50
27	RH30S010	LP Heater 3 Standpipe filling	15
28	RH30S011	LP Heater 3 hydraulic test Connection	50
29	RH30S012	LP Heater 3 Standpipe bottom isolating valve	80
30	RH30L501KA01	LP Heater 3 level control	25
31	RN10S008	LP Heater 1 Drain Pump Condensate Inlet Isol Valve	250
32	RN10S009	LP Heater 1 Drain Pumps Suction Drain	25
33	RN10S010	LP Heater 1 Drain Pump A Suction Vent to LP Htr 1	25
34	RN10S011	LP Heater 1 Drain Pump B Suction Vent to LP Htr 2	25
35	RN10S012	LP Heater 1 discharge vent valve	25
36	RN10S014	LP Heater 1 drain pump discharge drain valve	50
37	RN10S015	LP Heater 1 Drain Pump A Leak Off NRV	100
38	RN10S016	LP Heater 1 drain pump A Leak Off Isol	100
39	RN10S017	LP Heater 1 Drain Pump B Leak Off NRV	100
40	RN10S018	LP Heater 1 drain pump B Leak Off Isol	100
41	RN10S019	LP Heater 1 Drain Pumps leak-off drain valve	25
42	RN11S001	LP Heater 1 Barometric Loop Drain	15
43	RN11S002	LP Heater 1 Barometric Loop Test Point	25
44	RN12S001	Make-up water heater drain to LP heater 1	50
45	RN12S002	Make-up water Heater hydraulic test Connection	50
46	RN20S001	LP Heater 2 to LP Heater 1 dist isol. v/v	250
47	RN21S002	LP Heater 2 Dist drain valve	25
48	RU10S002	Feed water tank drain isolating valve	200
49	RU10S003	FWT Overflow Isol Valve	200
50	RU10S004	FWT Overflow Drain	25
51	RU20S001	Expansion vessel drain to condenser isolating valve	100
52	RU20S004	Expansion Vessel Stand Pipe Vent Valve	25
53	RU20S005	Expansion Vessel Stand Pipe Drain Valve	25
54	RU20S006	Expansion Vessel Emergency overflow water to pit	200
55	RU20S007	Expansion Vessel to Drain Tank Stand Pipe Bottom Isol	80
56	RU20S008	Expansion Drain Tank Return Drain	25
57	RU20S009	Expansion Vessel and Drain Tank Stand Pipe Top Isol	80
58	RU21S001	Expansion Vessel Drain Pump A Suction Isol	200
59	RU21S002	Expansion Vessel Drain Pump A Discharge NRV	100
60	RU21S003	Expansion Vessel Drain Pump A Discharge Isol	100
61	RU21S004	Condensate Return Pump A Low Check Valve	50
62	RU21S005	Condensate Return Pump A Low Isol Valve	50
63	RU22S001	Expansion Vessel Drain Pump B Suction Isol	200
64	RU22S002	Expansion Vessel Drain Pump B Discharge NRV	100
65	RU22S003	Expansion Vessel Drain Pump Discharge Isol	100
66	RU22S004	Condensate Return Pump B Low Check Valve	50
67	RU22S005	Condensate Return Pump B Low Isol Valve	50
68	RU10S001	FWT overflow Reg valve	200
69	RU20S003	Expansion vessel drain to condenser regulating valve	100
70	RM00S001	Gland Steam Condenser Inlet Isol Valve	500
71	RM00S002	Gland Steam Condenser Outlet Isol Valve	500
72	RM00S005	LPH 1 Inlet Isol Valve	500
73	RM00S006	LPH 1 Outlet Isol Valve	500
74	RM00S008	LPH 2 Inlet Isol Valve	500

75	RM00S009	LPH 2 Outlet Isol Valve	500
76	RM00S011	LPH 3 Inlet Isol Valve	500
77	RM00S012	LPH 3 Outlet Isol Valve	500
78	RM00S014	Condensate to feed water tank inlet NRV	350
79	RM00S015	Condensate to feed water tank inlet NRV	350
80	RM00S016	LP Heater 1 inlet drain valve	50
81	RM00S017	LP Heater 1 outlet vent valve	25
82	RM00S018	LP Heater 2 inlet drain valve	50
83	RM00S019	LP Heater 2 outlet vent valve	25
84	RM00S020	LP Heater 3 inlet drain valve	50
85	RM00S021	LP Heater 3 outlet vent valve	25
86	RM00S022	LP Condenser Hotwell Drain	100
87	RM00S023	Gland steam Condenser Inlet vent valve	25
88	RM00S024	Gland steam condenser Inlet drain valve	25
89	RM00S025	Gland Steam Condenser Inlet Bypass Isol Valve	50
90	RM00S026	LPH 1 Inlet bypass Isol Valve	50
91	RM00S027	LPH 2 Inlet bypass Isol Valve	50
92	RM00S028	LPH 3 Inlet Bypass Isol Valve	50
93	RM00S029	LP Heater 1 Hydraulic test connection	50
94	RM00S030	LP Heater 2 Hydraulic test connection	50
95	RM00S031	LP Heater 3 Hydraulic test connection	50
96	RM00S032	Condensate to LPH1 NRV	500
97	RM00S033	LP Heaters condensate drain	50
98	RM00S034	Gland Steam Condenser pipe vent valve	25
99	RM00S035	Condensate Drain After Hotwell Reg Valve	25/50
100	RM00S040	Gland steam Condenser Outlet vent valve	25
101	RM00S041	Gland steam Condenser Outlet drain valve	25
102	RM01S001	CEP A Suction Isol Valve	800
103	RM01S002	CEP A Discharge NRV	400
104	RM01S006	CEP's Suction Drain	50
105	RM02S001	CEP B Suction Isol Valve	800
106	RM02S002	CEP B Discharge NRV	400
107	RM02S003	CEP B Discharge Isol Valve	400
108	RM02S004	CEP B Suction relief valve	50
109	RM02S005	CEP B Suction Drain Valve	50
110	RM03S001	LP Bypass Spraywater bypass valve	25
111	RM04S001	Seal Water System Isol Valve	50
112	RM04S002	Seal Water Pressure Reducing valve	50
113	RM04S003	Main Condenser Stand Pipe Filling Isol Valve	25
114	RM04S004	Seal Water Header Drain	25
115	RM04S005	BFPT Seal Water Isolation	25
116	RM04S006	Main Turbine Seal Water Isol Valve	25
117	RM04S007	Air Extraction Seal Water Isol Valve	25
118	RM04S008	LP Heater Seal Water Isol Valve	25
119	RM04S009	LP Heater Seal Water Isol Valve	25
120	RM04S010	LP Heater Seal Water Isol Valve	25
121	RM04S011	LP Heaters Stand Pipe Filling NRV	25
122	RM04S012	HP Heater 6A / 6B Stand Pipe Filling NRV	25
123	RM04S013	HP Heater 5A / 5B Stand Pipe Filling NRV	25
124	RM04S014	Seal Water to CEP A Isol Valve	15
125	RM04S015	Seal Water to CEP B Isol Valve	15
126	RM04S016	Filler Pipe to Loop LPH 1	25

127	RM04S017	LPH 1 Drain Pump A Seal Water Isol Valve	15
128	RM04S018	LPH 1 Drain Pump B Seal Water Isol Valve	15
129	RM04S019	Expansion Vessel Stand Pipe Filling	25
130	RM04S020	BFPT Stand pipe Filling Isol Valve	25
131	RM04S021	Seal Water to Flash Box 2 Isol Valve	15
132	RM05S002	CRT Dumping from Condensate NRV	300
133	RM05S003	Condensate Recirc Pipe Drain	25
134	RM06S001	Condensate Reserve Tank Outlet V/v	600
135	RM06S002	FWT Low limit emergency Reg V/v	250
136	RM06S004	CRT Drain	100
137	RM06S005	Condensate Reserve Tank Level Drain	50
138	RM06S006	Condensate Reserve Tank Level Drain	15
139	RM06S007	Condensate Recirc Pipe Drain	50
140	RM07S002	CEP's Recirc Line Drain	25
141	RM08S001	Flashbox Spraywater Valve	65
142	RM08S002	LP Hood Spray Water Valve	40
143	RM08S003	Flashbox Spraywater Bypass Isol Valve	25
144	RM09S001	Recirc/Filling pump Suction Isolating	100
145	RM09S002	Filling Pump Discharge Isol Valve	80
146	RM09S003	Filling Pump Discharge NRV	80
147	RM09S004	Leak off Pipe from Filling Pump Isolating	50
148	RM09S005	Leak off Pipe from Filling Pump NRV	50
149	RM10S001	GSC bypass Isol Valve	500
150	RM21S001	EFP A Filling Isolation Check Valve	50
151	RM21S002	EFP A Filling Isolation	50
152	RM22S001	EFP B Filling Isolation Check Valve	50
153	RM22S002	EFP B Filling Isolation	50
154	RM23S001	BFPT Filling Isolation Check Valve	50
155	RM23S002	BFPT Filling Isolation	50
156	RM30S001	LPH 1 Bypass Isol Valve	400
157	RM40S001	LPH 2 Bypass Isol Valve	400
158	RM70S001	BFPT GSC Inlet Isol Valve	125
159	RM70S002	BFPT GSC Outlet Isol Valve	125
160	RM70S003	BFPT GSC Bypass Isol Valve	125
161	RM70S005	BFPT CEP Discharge Drain Isolation	25
162	RM70S006	BFPT GSC Condensate Drain	25
163	RM70S007	BFPT GSC Condensate Vent	25
164	RM70S009	BFPT Condenser Hot well Drain	80
165	RM70S010	BFPT Condensate Inlet to Main Condenser Isolating	25
166	RM70S011	BFPT Condenser Condensate Drain	25
167	RM71S001	BFPT CEP A Suction Isolation	200
168	RM71S003	BFPT CEP A Discharge Isolation	125
169	RM71S004	BFPT CEP A Suction Pipe Bent Isolation	25
170	RM71S005	BFPT CEP A Seal Water Isolation	15
171	RM72S001	BFPT CEP B Suction Isolation	200
172	RM72S003	BFPT CEP B Discharge Isolation	125
173	RM72S004	BFPT CEP B Suction Pipe Bent Isolation	25
174	RM72S005	BFPT CEP B Seal Water Isolation	15
175	UG53S001	Make-up water valve 4 nozzle	80
176	UG53S002	Make-up water heater inlet isolating valve	100
177	UG53S003	Make-up water heater outlet isolating valve	100
178	UG53S005	Make-up water Heater inlet drain	25

179	UG53S006	Demin Water Hydraulic Test Connection	25
180	UG53S007	Make-up Water Heater Vent	15
181	UG53S008	Make-up water valve 2 nozzle	65
182	UG54S001	Make-up water heater bypass	100
183	UG70S003	Feed water tank standpipe filling isolating valve	25
184	UG70S004	Feed water tank standpipe filling check valve	25
185	RB00S100	Hot reheat drain stop valve	100
186	RB00S101	Hot reheat drain valve	100
187	RB00S102	Hot Reheat Drain Pot Level Isol Valve	25
188	RB00S103	Hot Reheat Drain Pot Level Isol Valve	25
189	RB40S001	IP Bypass drain steam trap isolating valve	25
190	RB40S003	IP Bypass Reg Valve Drain Valve	25
191	RC00S001	HP Exhaust Drain Valve	50
192	RC01S002	Cold reheat 1 drain stop valve	100
193	RC01S003	Cold reheat drain valve 1	100/70
194	RC01S004	Starting Drain Cold Reheat Level Monitor Isolating	25
195	RC01S005	Starting Drain Cold Reheat Level Monitor Isolating	25
196	RC01S008	Cold Reheat Air Suction isolating valve	50 - (2")
197	RC01S009	Cold reheat air suction NRV	50 - (2")
198	RC02S002	Cold reheat 2 drain stop valve	100
199	RC02S003	Cold reheat drain valve 2	100/70
200	RC02S004	Starting drain cold reheat level monitor Isolating	25
201	RC02S005	Starting drain cold reheat level isolating valve	25
202	RC02S008	Cold Reheat Air Suction isolating valve	50 - (2" ANSI)
203	RC02S009	Cold reheat air suction NRV	50 - (2" ANSI)
204	RC20S002	BFPT Cold reheat motorised drain valve	25
205	RC20S003	Cold reheat & Auxiliary steam trap inlet valve	25
206	RC30S005	Auxiliary steam CRH vent valve	25
207	RF51S005	HP Heater 5A Standpipe vent	25
208	RF51S006	HP Heater 5A vent	25
209	RF51S007	HP Heater 5A vent to condensor	25
210	RF51S008	HP Heater 5A Vent to Atmosphere	15
211	RF51S009	HP Heater 5A Drain (regulating)	50
212	RF51S010	HP heater 5A hydraulic test connection	50
213	RF51S011	HP Heater 5A Standpipe filling	25
214	RF51S012	HP Heater 5A BSV inlet Drain trap isol	25
215	RF51S014	HP Heater 5A Standpipe bottom isol	80
216	RF51S015	HP Heater 5A Drain Isol	50
217	RF52S003	HP Heater 5B Standpipe top isolation	80
218	RF52S004	HP Heater 5B standpipe drain	25
219	RF52S005	HP Heater 5B Standpipe Vent	25
220	RF52S006	HP Heater 5B Vent	25
221	RF52S007	HP Heater vent to condensor	25
222	RF52S008	HP Heater 5B Vent to atmosphere	15
223	RF52S009	HP Heater 5B Drain v/v (reg.)	50
224	RF52S010	HP Heater 5B Hydraulic test connection	50
225	RF52S011	HP Heater 5B Standpipe filling	25
226	RF52S012	HP Heater 5B BSV inlet Drain trap isol	25
227	RF52S014	HP Heater 5B Standpipe bottom isol	80
228	RF52S015	HP Heater 5B Drain v/v (isol)	50

229	RF61S003	HP Heater Standpipe top isol v/v	80
230	RF61S004	HP Heater 6A Standpipe drain v/v	25
231	RF61S005	HP Heater 6A Standpipe vent	25
232	RF61S006	HP Heater 6A vent	25
233	RF61S007	HP heater 6A vent to Condensor	25
234	RF61S008	HP Heater 6A vent to Atmosphere	15
235	RF61S009	HP Heater 6A Drain (reg)	50
236	RF61S010	HP Heater 6A Hydraulic test connection	50
237	RF61S011	HP Heater 6A Standpipe filling	25
238	RF61S014	Hp heater 6A standpipe bottom isol	80
239	RF61S015	HP Heater 6A Drain isol	50
240	RF62S003	HP Heater 6B Standpipe top isol v/v	80
241	RF62S004	HP Heater 6B Standpipe Drain v/v	25
242	RF62S005	HP Heater 6B Standpipe Vent	25
243	RF62S006	HP Heater 6B vent	25
244	RF62S007	HP Heater 6B vent to Condensor	25
245	RF62S008	HP heater 6B Vent to atmosphere	15
246	RF62S009	HP Heater 6B Drain v/v (Reg)	50
247	RF62S010	HP Heater 6B Hydraulic test connection	50
248	RF62S011	HP Heater 6B standpipe filling	25
249	RF62S014	HP Heater 6B Standpipe bottom isolation	80
250	RF62S015	HP Heater 6B Drain v/v	50
251	RF50S002	Extraction 5 Bled steam Drain valve	25
252	RF50S003	Extraction 5 Drain valve	25
253	RF60S001	Drain upstream HP Heaters 6A/6B	25
254	RH30S003	Extraction 3 Bled steam drain valve	40
255	RH10S001	LP Heater 1 Bled Steam Inlet Drain To Condenser	25
256	RH20S001	LP Heater 2 Bled steam Inlet Drain to Condenser	25
257	RH30S002	LP Heater 3 Bled steam Inlet Drain valve to condensor	25
258	RH40S006	Extraction 4A Bled steam drain valve	40
259	RH40S007	Extraction bypass to Feed water tank NRV	125
260	RH40S008	Extraction bypass to Feed water tank NRV	125
261	RH40S009	Extraction 4A FWT Drain valve	65
262	RH40S010	FWT Bled steam pipe drain trap isol valve	25
263	RH40S016	FWT Stand Pipe 1 Top Isol Valve	80
264	RH40S017	FWT Standpipe 1 drain valve	25
265	RH40S018	Feed water tank standpipe 1 vent	25
266	RH40S019	FWT Standpipe 2 drain valve	25
267	RH40S020	FWT Standpipe 2 vent	25
268	RH40S021	FWT vent valve to tundish	50
269	RH40S022	FWT Vent to tundish	50
270	RH40S024	Extraction to FWT Drain	25
271	RH40S025	Vent to stork spray	25
272	RH40S026	Vent to stork spray	25
273	RH40S027	Extraction 4A Bled Steam Drain Isol valve	25
274	RH40S029	Feed water tank standpipe 1 bottom isolating valve	80
275	RH40S030	Feed Water Tank to tundish	50
276	RH40S031	Feed Water Tank to tundish	50
277	RH45S002	Extraction 4B to BFPT isol v/v	500
278	RH45S003	Extraction 4B Bled steam drain valve	40
279	RH45S004	BFPT Bled steam Emergency stop valve drain valve	40
280	RH45S005	Extraction 4B Bled steam drain isol valve	15

281	RH45S007	BFPT Bled steam ESV drain trap isol valve	15
282	RH45S009	Extraction 4B to BFPT Isol Bypass v/v	50
283	RL00S001	Feed pump discharge drain isol valve	25
284	RL00S002	Feed pump discharge vent isol valve	15
285	RL00S003	Feed pump discharge drain regulating valve	25
286	RL00S004	Feed pump discharge vent regulating valve	15
287	RL01S001	EFP A Suction isol v/v	300
288	RL01S005	EFP A Suction Pipe vent valve	25
289	RL01S006	EFP A Suction Balance Main Isol Valve	100
290	RL01S007	EFP A Main pump inlet strainer drain isolating valve	50
291	RL01S008	EFP A Discharge drain valve	25
292	RL01S009	Feed pump Balance Main vent valve	25
293	RL01S011	EFP A Booster Pump Inlet Strainer Air Release	15
294	RL01S012	EFP A Main pump inlet strainer drain regulating valve	50
295	RL01S013	EFP A Discharge drain regulating valve	25
296	RL02S001	EFP B Suction isol v/v	300
297	RL02S005	EFP B Suction pipe vent valve	25
298	RL02S006	EFP B Suction Balance Main Isol Valve	100
299	RL02S007	EFP B Main pump inlet strainer drain isolating valve	50
300	RL02S008	EFP B Discharge drain valve	25
301	RL02S010	EFP B Booster Pump Inlet Strainer Air Release	15
302	RL02S011	EFP B Main pump inlet strainer drain regulating valve	50
303	RL02S012	EFP B Discharge drain regulating valve	25
304	RL03S001	BFPT Suction isol.	500
305	RL03S004	BFPT Suction pipe vent valve	25
306	RL03S005	BFPT Suction Balance Main Isol Valve	100
307	RL03S010	BFPT Main pump inlet strainer drain regulating valve	50
308	RL03S011	BFPT Main Pump Discharge drain regulating valve	25
309	RL10S008	HP Heater 5A FW inlet Drain v/v isol	25
310	RL10S009	HP Heater 5A FW outlet Drain v/v isol	25
311	RL10S010	HP Heater 6A FW outlet drain v/v isol	25
312	RL10S011	HP heater 6A FW outlet vent v/v	15
313	RL10S012	A Line HP Heaters inl Section Drain isol	15
314	RL10S013	A line HP Heaters FW out Sect Drain (isol)	15
315	RL10S014	A-line HP Heater Hydraulic test connection	25
316	RL10S015	HPH 5A FW Inlet Drain Valve Regulating	25
317	RL10S016	HP Heater 5A FW outlet Drain reg v/v.	25
318	RL10S017	HP Heater 6A FW outlet Drain reg v/v	25
319	RL10S018	HP Heater 6A FW outlet vent v/v (reg)	15
320	RL10S019	A line HP Heaters Inlet Section Drain Reg	15
321	RL10S020	A-line HP Heater outlet Section Drain (Reg)	15
322	RL20S008	HP Heater 5B FW inlet Drain (isol)	25
323	RL20S009	HP Heater 5B FW outlet Drain (isol)	25
324	RL20S010	HP Heater 6B FW outlet Drain Isol	25
325	RL20S011	HP Heater 6B FW outlet vent (isol)	15
326	RL20S012	B-Line HP Heater FW inlet Sect Drain (isol)	15
327	RL20S013	B-Line HP heater outlet section drain valve	15
328	RL20S014	B Line HP Heater Hydraulic Test Connection	25
329	RL20S015	HP Heater 5B FW inlet Drain (reg)	25
330	RL20S016	HP Heater 5B outlet Drain (reg)	25
331	RL20S017	HP Heater 6B FW outlet Drain (reg)	25
332	RL20S018	HP Heater 6B FW outlet vent (regl)	15

333	RL20S019	B-Line HP Heater FW inlet Sect Drain Reg	15
334	RL20S020	B-line HP Heater outlet section drain Reg	15
335	RL30S001	HP Heater bypass Master Drain v/v	25
336	RL30S002	HP Heater Bypass Slave drain	25
337	RL51S003	EFP A Leak-off NRV	100
338	RL51S004	EFP A Leak-off isolating valve	100
339	RL51S005	EFP A Leak-off drain valve	25
340	RL52S003	EFP B Leak-off NRV	100
341	RL52S004	EFP B Leak-off isolating valve	100
342	RL52S005	EFP B Leak-off drain valve	25
343	RL53S004	BFPT Leak-off NRV	150
344	RL53S005	BFPT Leak-off isolating valve	150
345	RL53S006	BFPT Leak-off drain valve	25
346	RP51S001	HP Heater 5 A Drain to Feed water tank NRV	250
347	RP51S002	HP Heater 5A Drain to FWT isol v/v	250
348	RP51S004	HP Heater 5A drain to FWT isolating valve	300
349	RP51S005	HP Heater 5A Drain to FWT pipe Drain	25
350	RP51S006	HP Heater Drain to FWT Vent	15
351	RP52S001	HP Heater 5B Drain to Feed water tank NRV	250
352	RP52S002	HP Heater 5B to FWT Isol v/v	250
353	RP52S004	HP Heater 5B Drain to FWT isolating valve	300
354	RP52S005	HP Heater to FWT pipe drain	25
355	RP52S006	HP Heater 5B Drain to FWT vent	15
356	RP53S002	HP Heater 5A to Condenser Drain v/v	25
357	RP53S003	HP Heater 5A to Condenser Drain	25
358	RP54S002	HP Heater 5B to condenser drain	25
359	RP54S003	HP Heater 5B to condenser drain	25
360	RP63S002	HP Heater 6A Drain to Condenser Pipe Drain	25
361	RP63S003	HP Heater 6A Drain to condensor pipe drain	25
362	RP64S002	HP Heater 6B Drain to Condenser pipe drain	25
363	RP64S003	HP Heater 6B Drain to Condensor Pipe Drain	25
364	RQ00S002	Auxiliary steam header drain valve	25
365	RQ00S003	Auxiliary steam header drain trap inlet valve	25
366	RQ10S001	FWT Warming steam isol v/v	200
367	RQ10S003	Feed water start up NRV	200
368	RQ10S004	Auxiliary steam to feed water tank NRV	65
369	RQ10S005	DST Warming steam isol valve bypass	25
370	RQ10S006	DST Warming steam pipe drain	25
371	RQ10S008	Feed water Tank start-up emergency NRV	200
372	RQ20S001	Main turbine Gland steam Isolating valve	100
373	RQ20S002	Main turbine Gland steam pipe drain valve	25
374	RQ25S001	Turbine Warming Aux Steam Valve	150
375	RQ30S005	Unit 1 BBDV aux steam Drain	25
376	RQ30S021	Unit 1 BBDV aux steam Drain	25
377	RQ30S022	Unit 1 BBDV aux steam Drain	25
378	RQ31S001	Aux steam header unit isolating v/v	300
379	RQ31S002	Auxiliary steam Pre-warming drain valve	25
380	RQ31S003	Auxiliary steam pre-warming drain valve	25
381	RQ31S004	Auxiliary steam header drain trap inlet valve	25
382	RQ31S006	Aux steam unit header isolating v/v	300
383	RQ31S007	Auxiliary steam unit header vent isol valve	25
384	RQ31S008	Auxiliary steam unit heater vent valve	25

385	RQ50S002	BFPT Quick Start eject pipe drain inlet valve	15
386	RQ51S001	BFPT Gland steam isol v/v	50
387	RQ60S001	Extraction 5 Aux Steam Isol Units 1 and 2	150
388	RQ60S031	Extraction 5 Aux Steam Strainer Drain	40
389	RQ61S001	Turbine Warming Header Steam valve	150
390	RQ61S002	Extraction 5 Aux steam Unit header NRV	150
391	RQ61S003	Extraction 5 Aux steam vent valve	100
392	RQ61S004	Extraction 5 Aux steam isolating valve	150
393	RQ61S005	Auxiliary Steam Header 2 Valve	150
394	RQ61S006	Auxiliary Steam Header 2 Bypass Valve	40
395	RQ61S007	Extraction 5 Auxiliary Steam NRV	150
396	RQ61S008	Extraction 5 Auxiliary Steam Isol Section Vent Valve Isol	25
397	RQ61S009	Extraction 5 Auxiliary Steam Isol Section Vent Valve	25
398	SA11S150	IP Cooling Cold Steam	40
399	SA11S151	Casing warming header drain	15
400	SA11S152	Casing warming header drain	25
401	SA11S552	HP Casing Heating NRV	100
402	SA11S553	Turbine Warming Aux Steam NRV	150
403	SA11Z101	IP Casing heating screen insert	100
404	SA11Z102	IP Casing heating screen insert	100
405	SA12S053	IP Cooling hot steam valve	80
406	SA12S054	IP Cooling isolating valve	65
407	SA12S552	IP Casing heating NRV	100
408	SA51S013	BFPT control v/v 2 heating line isol valve	50
409	SG20S003	Leak Steam Overflow Reg Valve	200
410	SG20S703	Gland Steam NRV to Turbine Valves	300
411	SG22S005	Gland steam isolating valve	80
412	SG24S110	Turbine Gland Steam Temp Reg Isol Valve 1	25
413	SG24S210	Spray Nozzle 1 Isol Valve	20
414	SG24S211	Spray Nozzle 2 Isol Valve	20
415	SG24S510	Gland Steam Cooler Inlet Check Valve	25
416	SG60S001	BFPT Gland Steam Pressure Reg Valve	40/125
417	SG60S503	BFPT Overflow Throttle Damper	50
418	SG61S123	BFPT Gland Steam Condenser Auxiliary Damper	50
419	SG61S720	BFPT GSC Gland / Steam Exhaust to Atm. NRV	150/200
420	SG61S921	BFPT GSC Extractor NRV	125/80
421	SG62S005	BFPT Seal Steam Start Up Valve	40
422	SH10S001	HP Turbine inlet drain valve	25
423	SH10S009	HP Chest Warming Valve 1	80
424	SH10S010	HP Chest Warming valve 2	80
425	SH10S011	IP Turbine inlet drain valve	25
426	SH10S012	IP Cooling Mixing drain valve	25
427	SH10S013	IP Cooling pipe drain valve	25
428	SH10S019	IP Chest Warming valve 1	100
429	SH10S020	IP Chest Warming valve 2	100
430	SH10S052	Gland steam warming valve	65
431	SH10S053	Auxiliary Steam Warming valve	25
432	SH10S101	HP Turbine inlet Drain valve	15
433	SH10S109	HP Chest Warming drain valve 1	15
434	SH10S110	HP Chest Warming drain valve 2	15
435	SH10S111	IP Turbine inlet drain valve	15
436	SH10S112	IP Cooling Mixing drain valve	15

437	SH10S113	IP Cooling Mixing pipe drain valve	15
438	SH10S119	IP Chest Warming drain valve 1	15
439	SH10S120	IP Chest Warming drain valve 2	15
440	SH10S156	Gland Steam Condensate drain valve	50
441	SH10S553	Drain Line NRV	40
442	SH50S001	BFPT CRH ESV Warming valve	50
443	SH50S002	BFPT Bled steam ESV Warming valve	25
444	SH50S003	BFPT Casing Drain Valve	25
445	SH50S102	BFPT Bled steam ESV Warming drain isol valve	15
446	SH50S104	BFPT Seal steam drain valve	15
447	SH50S152	BFPT Gland Steam Warming Drain Isol	25
448	SH50S156	BFPT GSC Drain Isol to Steam Trap	25
449	SO10S005	HP Chest warming valve 1	150
450	SO10S105	Heating Steam Pipe	150
451	SO10S505	Heating Line Check Valve	150
452	RM71S002	BFPT CEP A discharge NRV	125
453	RM72S002	BFPT CEP B discharge NRV	125
454	RN10S001	LP heater 1 Drain Pump A Suction iso v/v	350
455	RN10S002	LP heater 1 Drain pump A NRV	150
456	RN10S003	LP heater 1 Drain pump A discharge iso v/v	250
457	RN10S004	LP heater 1 Drain pump B Suction iso v/v	350
458	RN10S005	LP heater 1 Drain pump B NRV	150
459	RN10S006	LP heater 1 Drain pump B discharge iso v/v	250
460	RN31S002	LP heater 3 DST drain v/v	25
461	RQ40S002	Start eject pipe drain trap inlet valve	15
462	RQ50S002	BFPT start eject pipe drain trap inlet valve	15
463	RQ60S003	Extraction 5 Aux steam isolating valve	150
464	RQ60S032	Extraction 5 Aux steam drain v/v	50
467	RM73S001	BFPT condensate recirc valve	80

Turbine General valves to be refurbished during IRs and MGOs:

No.	AKZ No.	Description
1	RH10S002	LP Heater 1 Standpipe top isolating valve
2	RH10S003	LP Heater 1 Standpipe drain valve
3	RH10S004	LP Heater 1 Standpipe vent valve
4	RH10S005	LP Heater 1 Vent to Condenser
5	RH10S006	LP Heater 1 Vent to Condenser
6	RH10S009	Make-up Water Heater Bled Steam Isol
7	RH10S010	Make-up Water Heater Vent to Condenser
8	RH10S011	LP Heater 1 Standpipe bottom isolating valve
9	RH20S002	LP Heater 2 Standpipe top isolating valve
10	RH20S003	LP Heater 2 Standpipe drain valve
11	RH20S004	LP Heater 2 Standpipe vent valve
12	RH20S005	LP heater 2 Vent to Condensor
13	RH20S006	LP heater 2 Vent to Condensor
14	RH20S009	LP heater 2 Stand Pipe Bottom Isol Valve
15	RH30S004	LP Heater 3 Standpipe top isolating valve

16	RH30S005	LP Heater 3 Standpipe drain valve
17	RH30S006	LP Heater 3 Standpipe vent valve
18	RH30S007	LP Heater 3 Vent to condenser
19	RH30S008	LP Heater 3 Vent to condenser
20	RH30S012	LP Heater 3 Standpipe bottom isolating valve
21	RN10S006	LP Heater 1 Drain Pump B Discharge Isol
22	RN10S008	LP Heater 1 Drain Pump Condensate Inlet Isol Valve
23	RN10S009	LP Heater 1 Drain Pumps Suction Drain
24	RN10S010	LP Heater 1 Drain Pump A Suction Vent to LP Htr 1
25	RN10S011	LP Heater 1 Drain Pump B Suction Vent REG valve
26	RN10S012	LP Heater 1 discharge vent valve
27	RN10S014	LP Heater 1 drain pump discharge drain valve
28	RN10S015	LP Heater 1 Drain Pump A Leak Off NRV
29	RN10S016	LP Heater 1 drain pump A Leak Off Isol
30	RN10S017	LP Heater 1 Drain Pump B Leak Off NRV
31	RN10S018	LP Heater 1 drain pump B Leak Off Isol
32	RN10S019	LP Heater 1 Drain Pumps leak-off drain valve
33	RN11S001	LP Heater 1 Barometric Loop Drain
34	RN11S002	LP Heater 1 Barometric Loop Test Point
35	RN12S001	Make-up water heater drain to LP heater 1
36	RN12S002	Make-up water Heater hydraulic test Connection
37	RN20S001	LP Heater 2 to LP Heater 1 dist isol. v/v
38	RN21S002	LP Heater 2 Dist drain valve
39	RU10S002	Feed water tank drain isolating valve
40	RN30S001	LPH 3 to LPH 2 Dist Isol Valve
41	RU20S001	Expansion vessel drain to condenser isolating valve
42	RU20S006	Expansion Vessel Emergency overflow water to pit
43	RM00S016	LP Heater 1 inlet drain valve
44	RM00S017	LP Heater 1 outlet vent valve
45	RM00S018	LP Heater 2 inlet drain valve
46	RM00S019	LP Heater 2 outlet vent valve
47	RM00S020	LP Heater 3 inlet drain valve
48	RM00S021	LP Heater 3 outlet vent valve
49	RM00S022	LP Condenser Hotwell Drain
50	RM00S023	Gland steam Condenser Inlet vent valve
51	RM00S024	Gland steam condenser Inlet drain valve
52	RM00S025	Gland Steam Condenser Inlet Bypass Isol Valve
53	RM00S026	LPH 1 Inlet bypass Isol Valve
54	RM00S027	LPH 2 Inlet bypass Isol Valve
55	RM00S028	LPH 3 Inlet Bypass Isol Valve
56	RM00S029	LP Heater 1 Hydraulic test connection
57	RM00S033	LP Heaters condensate drain
58	RM04S008	LP Heater Seal Water Isol Valve
59	RM04S009	LP Heater Seal Water Isol Valve
60	RM04S010	LP Heater Seal Water Isol Valve
61	RM04S011	LP Heaters Stand Pipe Filling NRV
62	RM04S012	HP Heater 6A / 6B Stand Pipe Filling NRV
63	RM04S013	HP Heater 5A / 5B Stand Pipe Filling NRV
64	RM04S014	Seal Water to CEP A Isol Valve
65	RM04S015	Seal Water to CEP B Isol Valve
66	RM04S016	Filler Pipe to Loop LPH 1

67	RM04S017	LPH 1 Drain Pump A Seal Water Isol Valve
68	RM04S018	LPH 1 Drain Pump B Seal Water Isol Valve
69	RM04S019	Expansion Vessel Stand Pipe Filling
70	RM50S002	LPH3 Bypass Hydraulic Test
71	RM40S002	LPH 2 Bypass Isolation
72	UG53S001	Make-up water valve 4 nozzle
73	UG53S008	Make-up water valve 2 nozzle
74	RB00S100	Hot reheat drain stop valve
75	RB00S101	Hot reheat drain valve
76	RC01S002	Cold reheat 1 drain stop valve
77	RC01S003	Cold reheat drain valve 1
78	RC02S002	Cold reheat 2 drain stop valve
79	RC02S003	Cold reheat drain valve 2
81	RC20S002	BFPT Cold reheat motorised drain valve
85	RF51S005	HP Heater 5A Standpipe vent
86	RF51S006	HP Heater 5A vent
87	RF51S007	HP Heater 5A vent to condensor
88	RF51S008	HP Heater 5A Vent to Atmosphere
89	RF51S009	HP Heater 5A Drain (regulating)
90	RF51S012	HP Heater 5A BSV inlet Drain trap isol
91	RF51S014	HP Heater 5A Standpipe bottom isol
92	RF51S015	HP Heater 5A Drain Isol
94	RF52S003	HP Heater 5B Standpipe top isolation
95	RF52S004	HP Heater 5B standpipe drain
96	RF52S005	HP Heater 5B Standpipe Vent
97	RF52S006	HP Heater 5B Vent
98	RF52S007	HP Heater vent to condensor
99	RF52S008	HP Heater 5B Vent to atmosphere
100	RF52S009	HP Heater 5B Drain v/v (reg.)
101	RF60S002	LPH 6B Vent
102	RF61S012	LPH 6B Vent
103	RF62S012	LPH 6B Vent
104	RF62S013	LPH 6B Vent
105	RF52S014	HP Heater 5B Standpipe bottom isol
106	RF52S015	HP Heater 5B Drain v/v (isol)
108	RF61S003	HP Heater Standpipe top isol v/v
109	RF61S004	HP Heater 6A Standpipe drain v/v
110	RF61S005	HP Heater 6A Standpipe vent
111	RF61S006	HP Heater 6A vent
112	RF61S007	HP heater 6A vent to Condensor
113	RF61S008	HP Heater 6A vent to Atmosphere
114	RF61S009	HP Heater 6A Drain (reg)
115	RF51S003	HP Heater 5A Standpipe Top Iso Valve
116	RF51S004	HP Heater 5A Standpipe drain v/v
117	RF61S014	HP heater 6A standpipe bottom isol
118	RF61S015	HP Heater 6A Drain isol
120	RF62S003	HP Heater 6B Standpipe top isol v/v
121	RF62S004	HP Heater 6B Standpipe Drain v/v
122	RF62S005	HP Heater 6B Standpipe Vent
123	RF62S006	HP Heater 6B vent
124	RF62S007	HP Heater 6B vent to Condensor

125	RF62S008	HP heater 6B Vent to atmosphere
126	RF62S009	HP Heater 6B Drain v/v (Reg)
128	RF62S011	HP Heater 6B standpipe filling
129	RF62S014	HP Heater 6B Standpipe bottom isolation
130	RF62S015	HP Heater 6B Drain v/v
131	RF50S002	Extraction 5 Bled steam Drain valve
132	RF50S003	Extraction 5 Drain valve
133	RF60S001	Drain upstream HP Heaters 6A/6B
134	RH10S001	LP Heater 1 Bled Steam Inlet Drain To Condenser
135	RH20S001	LP Heater 2 Bled steam Inlet Drain to Condenser
136	RH30S002	LP Heater 3 Bled steam Inlet Drain valve to condensor
137	RH40S003	Extraction 4A Bled Steam Isolating Valve
138	RH45S002	Extraction 4B to BFPT isol v/v
139	RH45S004	BFPT Bled steam Emergency stop valve drain valve
140	RL01S001	EFP A Suction isol v/v
143	RL01S006	EFP A Suction Balance Main Isol Valve
144	RL02S001	EFP B Suction isol v/v
147	RL02S006	EFP B Suction Balance Main Isol Valve
148	RL03S001	BFPT Suction isol.
150	RL03S005	BFPT Suction Balance Main Isol Valve
151	RL03S113	Main Pump Air Release
155	RL10S008	HP Heater 5A FW inlet Drain v/v isol
156	RL10S009	HP Heater 5A FW outlet Drain v/v isol
157	RL10S010	HP Heater 6A FW outlet drain v/v isol
158	RL10S011	HP heater 6A FW outlet vent v/v
159	RL10S012	A Line HP Heaters inl Section Drain isol
160	RL10S013	A line HP Heaters FW out Sect Drain (isol)
161	RL10S014	A-line HP Heater Hydraulic test connection
162	RL10S015	HPH 5A FW Inlet Drain Valve Regulating
163	RL10S016	HP Heater 5A FW outlet Drain reg v/v.
164	RL10S017	HP Heater 6A FW outlet Drain reg v/v
165	RL10S018	HP Heater 6A FW outlet vent v/v (reg)
166	RL10S019	A line HP Heaters Inlet Section Drain Reg
167	RL10S020	A-line HP Heater outlet Section Drain (Reg)
180	RL20S008	HP Heater 5B FW inlet Drain (isol)
181	RL20S009	HP Heater 5B FW outlet Drain (isol)
182	RL20S010	HP Heater 6B FW outlet Drain Isol
183	RL20S011	HP Heater 6B FW outlet vent (isol)
184	RL20S012	B-Line HP Heater FW inlet Sect Drain (isol)
185	RL20S013	B-Line HP heater outlet section drain valve
186	RL20S014	B Line HP Heater Hydraulic Test Connection
187	RL20S015	HP Heater 5B FW inlet Drain (reg)
188	RL20S016	HP Heater 5B outlet Drain (reg)
189	RL20S017	HP Heater 6B FW outlet Drain (reg)
190	RL20S018	HP Heater 6B FW outlet vent (regl)
191	RL20S019	B-Line HP Heater FW inlet Sect Drain Reg
192	RL20S020	B-line HP Heater outlet section drain Reg
202	RL30S001	HP Heater bypass Master Drain v/v
203	RL30S002	HP Heater Bypass Slave drain
204	RL51S003	EFP A Leak-off NRV

206	RL52S003	EFP B Leak-off NRV
207	RL53S004	BFPT Leak-off NRV
212	RP51S001	HP Heater 5 A Drain to Feed water tank NRV
213	RP51S002	HP Heater 5A Drain to FWT isol v/v
214	RP51S004	HP Heater 5A drain to FWT isolating valve
215	RP51S005	HP Heater 5A Drain to FWT pipe Drain
216	RP51S006	HP Heater Drain to FWT Vent
217	RP52S001	HP Heater 5B Drain to Feed water tank NRV
218	RP52S002	HP Heater 5B to FWT Isol v/v
219	RP52S004	HP Heater 5B Drain to FWT isolating valve
220	RP52S005	HP Heater to FWT pipe drain
221	RP52S006	HP Heater 5B Drain to FWT vent
222	RP53S002	HP Heater 5A to Condenser Drain v/v
223	RP53S003	HP Heater 5A to Condenser Drain
224	RP54S002	HP Heater 5B to condenser drain
225	RP54S003	HP Heater 5B to condenser drain
226	RP63S002	HP Heater 6A Drain to Condenser Pipe Drain
227	RP63S003	HP Heater 6A Drain to condensor pipe drain
228	RP64S002	HP Heater 6B Drain to Condenser pipe drain
229	RP64S003	HP Heater 6B Drain to Condensor Pipe Drain
230	RQ10S001	FWT Warming steam isol v/v
231	RQ10S003	Feed water start up NRV
232	RQ10S004	Auxiliary steam to feed water tank NRV
233	RQ10S008	Feed water Tank start-up emergency NRV
234	RQ20S001	Main turbine Gland steam Isolating valve
235	RQ20S002	Main turbine Gland steam pipe drain valve
236	RQ25S001	Turbine Warming Aux Steam Valve
237	RQ31S001	Aux steam header unit isolating v/v
238	RQ40S001	Steam Ejector Steam Valve
239	RQ50S001	BFPT Ejector Steam Valve
240	SH10S001	HP TRB Inlet Drain Valve
241	SH10S010	HP Chest Warming valve 2
242	SH10S011	IP Turbine inlet drain valve
243	SH10S012	IP Cooling Mixing drain valve
244	SH10S013	IP Cooling pipe drain valve
245	SH10S019	IP Chest Warming valve 1
246	SH10S020	IP Chest Warming valve 2
247	SH10S052	Gland steam warming valve
248	SH10S053	Auxiliary Steam Warming valve
249	SH10S009	HP Chest Warming valve

Turbine General valves to be refurbished during opportunity maintenance:

No.	Akz number		Description
1	RM70S009		BFPT Condenser Hot well Drain
2	RF51S003		HP heater 5A standpipe top isol v/v
3	RF62S003		HP Heater 5B Standpipe bottom isol
4	RL01S006		EFP A Suction balance main isol v/v
5	RL02S006		EFP B Suction balance main isol v/v
6	RL03S005		BFPT Suction balance main isol v/v

7	RC01S002		Cold reheat 1 drain stop valve
8	RC02S002		Cold reheat 2 drain stop valve
9	RC01S003		Cold reheat drain valve 1
10	RC02S003		Cold reheat drain valve 2
12	RQ61S003		Extraction 5 Aux steam vent valve
13	RB00S101		Hot reheat drain valve
14	RB00S100		Hot reheat stop valve
15	SH10S019		IP Chest Warming valve 1
16	SH10S020		IP Chest Warming valve 2
17	RM00S022		LP Condenser Hotwell Drain
18	RM71S003		BFPT CEP A Discharge Isolation
19	RM72S003		BFPT CEP B Discharge Isolation
20	RM70S010		BFPT Condensate Inlet to Main Condenser Isolating
21	RQ61S001		Aux. Steam unit Header isolating valve
22	RQ60S001		Auxiliary steam header 2 vlv 1
23	RQ61S005		Extraction 5 Aux steam isolating valve
24	RQ61S007		Extraction 5 Aux steam NRV
25	SO10S105		Heating Steam Pipe
26	SO10S005		HP Chest warming valve 1
27	RM71S001		BFPT CEP A Suction Isolation
28	RM72S001		BFPT CEP B Suction Isolation
29	RU21S001		Expansion Vessel Drain Pump A Suction Isol
30	RU22S001		Expansion Vessel Drain Pump B Suction Isol
31	RU20S006		Expansion Vessel Emergency overflow water to pit
32	RQ10S008		Feed water Tank start-up emergency NRV
33	RU10S002		FWT drain isolating valve
34	RU10S003		FWT Overflow Isol valve
35	RU10S001		FWT Overflow reg valve
36	RQ10S001		FWT Warming steam isol v/v
37	SG20S003		Leak Steam Overflow Reg Valve
38	RM06S002		FWT Low limit emergency Reg v/v
39	RP51S001		HP Heater 5 A Drain to Feed water tank NRV
40	RP51S002		HP Heater 5A Drain to FWT isol v/v
41	RP52S001		HP Heater 5B Drain to Feed water tank NRV
42	RP52S002		HP Heater 5B Drain to FWT Isol v/v
43	RN10S008		LP Heater 1 Drain Pump Condensate Inlet Isol Valve
44	RN20S001		LP Heater 2 to LP Heater 1 dist isol. v/v
45	RQ31S001		Aux steam header unit isolating v/v
46	RQ31S006		Aux steam unit header isolating v/v
47	RM05S002		CRT Dumping from Condensate NRV
48	RL01S001		EFP A Suction isol v/v
49	RL02S001		EFP B Suction isol v/v
50	SG20S703		Gland Steam NRV to Turbine Valves
51	RP51S004		HP Heater 5A drain to FWT isolating valve
52	RP52S004		HP Heater 5B Drain to FWT isolating valve
53	RM00S014		Condensate to feed water tank inlet NRV
54	RM00S015		Condensate to feed water tank inlet NRV
55	RH10S009		Make-up Water Heater Bled Steam Isol
56	RM01S003		CEP A Discharge Isol Valve
57	RM01S002		CEP A Discharge NRV
58	RM02S003		CEP B Discharge Isol Valve
59	RM02S002		CEP B Discharge NRV

60	RM30S001		LPH 1 Bypass Isol Valve
61	RM40S001		LPH 2 Bypass Isol Valve
62	RL03S001		BFPT Suction isol.
63	RM00S032		Condensate to LPH1 NRV
64	RH45S002		Extraction 4B to BFPT isol v/v
65	RM00S001		Gland Steam Condenser Inlet Isol Valve
66	RM00S002		Gland Steam Condenser Outlet Isol Valve
67	RM10S001		GSC bypass Isol Valve
68	RM00S005		LPH 1 Inlet Isol Valve
69	RM00S006		LPH 1 Outlet Isol Valve
70	RM00S008		LPH 2 Inlet Isol Valve
71	RM00S009		LPH 2 Outlet Isol Valve
72	RM00S011		LPH 3 Inlet Isol Valve
73	RM00S012		LPH 3 Outlet Isol Valve
74	RM06S001		Condensate Reserve Tank Outlet v/v
75	RM01S001		CEP A Suction Isol Valve
76	RM02S001		CEP B Suction Isol Valve

- **Completion of Documentation two weeks after completion date**

Valve cleanliness checks

- The valve must be fully opened so that it can be inspected internally to ensure that it is free from dirt or grit.

Lifting of Valves

- *All valves with a nominal bore greater than 100mm will require lifting gear. The weight of the valve must be obtained from the relevant valve overhaul maintenance instruction before setting up lifting gear. Use overhead runway beams and travelling trolleys where available for lifting valves. Set up lifting gear to the valve to be removed.*
- *Proof of lifting certification to be submitted to the Employer's Representative, whereby the Employer's Representative will assess and certify, prior the Starting date.*

Lethabo Quality Control Inspectors

- Quality control inspections will be conducted on behalf of Eskom by a quality inspector from Maintenance Support Services Section. The quality inspector must be authorised by the Power Station Maintenance Manager in terms of LMA10002. The inspections will be carried out to provide an assessment of conformance to specification and quality requirements. These inspections do not take any responsibility away from the supervisor or artisan performing the work.
- The quality inspector's responsibilities include the following:
 - Reviewing maintenance procedures and work instructions and indicating witness and hold points.

- Verifying that specified quality requirements have been achieved by inspecting work in progress and indicating acceptance on the quality control plan.
- Ensuring that quality control plans conform to the requirements of Lethabo Power Station and that these quality control plans are completed for all valves overhauled. The quality control plan must be made available by the *Employer's* Representative prior to commencement of work for review.
- Ensuring that acceptable maintenance practice and all relevant codes, standards

			Applicable
Document No.	Rev.	Title	Yes/No
LBA 00030	2	Safety with which contractors are to conform at Lethabo Power Station	Y
LBA 00040	2	Lethabo Environmental Policy	Y
LBA 00049	1	Procedure for Commissioning of New/Modified Plant	N
LBA 00054	3	Hazardous waste storage and removal procedure	Y
LBA 00067	4	Safety Supervision for Contractors working for Lethabo Power Station	N
LBA 00085	3	Master Permit to Work for declared major outages	Y
LBT 00017	1	Limited Access Register Procedure	N
Eskom GGR0992		Plant Safety Regulations for Lethabo Power Station	Y
ESKASAAU7	0	Quality Requirements for the Procurement of Assets, Goods and Services	Y
LBA 00060	2	Change Management Procedure	N
LBA000135	0	Control& Prevention of asbestos exposure at Lethabo	Y
PS053	0	Intellectual Property	N
LMT 00001	1	Quality Control process for the Maintenance department	Y
LMA 10403	1	Welding, flame cutting and soldering	Y
LOTNA 6001	1	Pressure testing of the boiler HP section as per statutory regulations	Y
LOTNE 6001		Pressure testing of the boiler re-heater section as per statutory regulations	Y
LMT 10405	0	Hydraulic Pressure Testing of the boiler re-heaters	Y
LMT 10404	0	Hydraulic Pressure Testing of the boiler	Y
BS111 3		Boiler Design Code	Y
LBA 00099	0	Reverse Engineering Procedure	Y

and statutory requirements are adhered to.

- The quality inspector has the authority to stop work where an inadequacy threatens the safety of plant or personnel. It is the responsibility of the person performing the activity to inform the quality inspector prior to reaching a witness or hold point. In the case of a major outage the quality inspector must be informed at least one day in advance.

Drawings

None

Specifications

Constraints on how the *Contractor* Provides the Works

4.1 Use of standard forms

The *Contractor* shall use the following standard form and all the forms shall be requested from the *Employer* when needed:

- DCC 333 - *Employer's* Assessment
- DCC 367 – Event Register
- DCC 368 – Completion Certificate
- DCC 370 – Access Certificate
- DCC 371 – Notification of Defect
- LFM 1007 – Quality Control for *Contractor*

4.2 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*.
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- The original copy of an invoice shall be send to the *Employer's* accounts payable section (APS).

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he/she has completed.

4.4 Records of Defined Cost

- In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, Plant and Materials, work subcontracted by the *Contractor* and Equipment. [See clause 11.2(5) and 63.2].
- The *Contractor* shall keep all the original invoice and these invoice shall be supplied to the *Employer* shall the need arise.

4.5 Supplier Development Localisation & Industrialisation (SDLI)

SDLI obligations

Local Procurement Content

“Local Procurement Content” refers to value added in South Africa by South African resources. Where a single contract involves a combination of local and imported goods and/or services, the tender response must be separated into its components as per the Price Schedule included with the tender documents. Local procurement content is total spending minus the imported component.

Tenderers are required to submit their proposals in the table below.

Local Procurement Content	Eskom target	Tenderer Proposal
	100%	100%

Procurement spend on entities with a minimum 51% black ownership

Jobs. Tenderers are required to submit proposals for the type and number of jobs that will be created and retained in South Africa as a direct result of being awarded a contract.

Type of Jobs to be created	Number of Jobs to be created

Type of Jobs to be retained	Number of Jobs to be retained

Skills development

[Skill type / Occupation]	Eskom target	Proposed Number of Candidates
Mechanical fitters		
Riggers		
Safety Officers		

Enterprise Development

Are there specific ED requirements that are not achievable through Sub-contracting?

YES	NO
	<input type="checkbox"/>

If Yes, the main contractor is required propose development in the following areas or against the following Eskom's targets:

Eskom's Target	Tenderer Proposal
The bidder to identify and incubate a Small Measured Entity from the above-mentioned District Municipalities. Assistance could be in the form of business support/ equipment/finance.	

In addition, the bidder will be expected to draft an ED proposal within eight weeks of contract award stage. ED agreement must be signed with the beneficiary and sent to Eskom for review and acceptance. Progress will be monitored throughout the duration of the contract.

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.

Reporting and Monitoring

- The suppliers shall on a quarterly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- Eskom shall review the SDL&I reports submitted by the suppliers within 30 (thirty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.
- Upon notification by Eskom that the suppliers have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.
- Every contract shall be accompanied by the SDL&I Implementation Schedule, which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments.

4.6 BBBEE and preferencing scheme

Transformation – BBBEE Improvement or Retention Plan

Transformation remains an area of focus, where Eskom continuously strives to align itself with national transformation imperatives to unlock growth, drive industrialization, create employment and contribute to skills development. Eskom encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Tenderer/s will be allocated points in terms of a preference point system based on specific goals, Eskom also requests that tenderer/s submits their B-BBEE improvement or retention plan within 30 days of signing the contract.

Tenderer/s are therefore requested to indicate the extent to which they will maintain (only if the respondent is a Level 1) or may improve/maintain their B-BBEE status over the contract period if their B-BBEE status is level 2 or 3. Tenderer/s with a B-BBEE status level 4 at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of B-BBEE Level 3 by the end of the first year of the contract and thereafter improve their B-BBEE status level or migrate by one level higher.

Tenderer/s with a B-BBEE recognition status of Level 5 to Level 8 or non-compliant at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of Level

4 by the end of the first year of the contract and thereafter improve at least one B-BBEE Level higher of each year from the second year of the contract.

Tenderer/s are requested to submit their B-BBEE Improvement Plan as an essential document within 30 days of signing the contract.

NB: A valid B-BBEE certificate or Sworn Affidavit is a condition for contract award, if your company's annual Total Revenue is R10 Million or less you qualify as an Exempted Micro Enterprise therefore you can submit Sworn Affidavit. If your annual Total Revenue is R50 Million or less, you qualify as Qualifying Small Enterprise and must comply with all of the elements of QSE score card relevant to your sector unless an entity is at least 51% Black owned you are required to obtain a Sworn affidavit. If your Annual Total Revenue is above R50m you need to submit a Valid B-BBEE certificate

4.7 Others

N/A

5. Requirements for the programme & Planning

- The Employer will provide an outage programme to the Contractor for planning and implementation purposes, but it must be noted that the dates provided are subjected to change at any time.
- The Contractor shall submit a program, compiled in Microsoft Project or Primavera, which will provide details of the list of activities and the duration of each activity.
- A list of activities and duration of each shall be made available after an instruction to commence work is supplied to the Contractor by the Employer's Representative.
- All activities and requirements for interfaces between the Contractor and Employer shall be listed in the program. The program will be updated weekly and will be used to manage all installation activities. The *Contractor* is to provide a detailed report, within twenty-one (21) days, on any completed project work.

Procurement strategy

2.1 Task Order process (Option A2 only)

- The *Employers'* Representative, or his delegate, issues a unique Task Order for **General Service and overhaul of Turbine High Pressure, High Temperature and General valves on unit 1-6 during outages, running maintenance and opportunity maintenance** required.

2.2 Intentions of the *Employer* before Completion

- The *Employer* reserves the right to carry out any checks, on quantities and categories of the personnel supplied per Task Order.
- The *Employer* reserves the right to carry out any checks, or conduct any physical inspections or tests, on the service provided.

2.3 Particulars to be included on the *Supplier's* Tax Invoice

- The *Employers'* Contract number
- The *Employers'* Task Order number
- The *Suppliers'* VAT number
- Duration and description of the Task for which the services were rendered
- Quantities and categories of expenses per Task Order

3 Material provided by the *Employer* for the services.

- The Supplier is responsible for time keeping of the personnel on Site and supplies the original to the *Employer* on completion of the Task Order.
- The Supplier is responsible for keeping record of the quantities of Equipment and consumables on Site and supplies the original to the *Employer* on completion of the Task Order.
- Any material provided by the *Employer* is restricted to copying as required for the purpose of providing the Services.

4 Access provided by the *Employer* to a person, service, facility place or thing, including restrictions if any

4.1 Services and equipment supplied by the *Employer*

- Under no circumstances is the *Supplier* or his employees allowed to connect up to any piped services or electrical supply without the permission of the *Employer*.

4.1.1 Supply of Electricity

- 220V, 30A and 380V, 60A power supplies are available. All installations or equipment connected to a supply of electricity provided free of charge by the *Employer* must comply with all relevant safety regulations and requirements. Failure to comply with the safety requirements may lead to immediate disconnection.
- No guarantees of power supply quality are given and power supply breaks of some duration may occur without warning and it shall not be grounds for additional time or compensation.

4.1.2 Water

- The *Employer* makes available free of charge, potable water as required for the purpose of this Contract.

4.1.3 Roads

- All traffic is limited to using existing roads.
- The *Employer* recovers any costs from the *Supplier* that is incurred from damage caused to underground services, structures, etc., as a result of the *Supplier* not using the prescribed routes.

4.1.4 First Aid Centre

- Incidents and accidents must be reported and to the *Employer* within 24 hours.
- First aid must be made available by the *Supplier*. Alternatively use can be made of the Lethabo medical centre at a fee. The availability of the *Supplier's* own first aid does not relieve the *Supplier* of his obligation to report and investigate the incident.
- Any incident or accident is at the *Supplier's* cost, if reasonable skill and care has not been taken by the *Supplier*.

4.1.5 Telecommunications

- The *Supplier* arranges with the *Employer* for the use of telecommunication services.

4.2 Plant & Materials

- The *Employer* may at his own discretion supply any Plant and or Materials as required by the *Supplier* to Provide the Services.

4.3 Services Provided by the *Supplier*

4.3.1 Electrical Equipment / Appliances, Lighting and Power

- Any electrical equipment or appliances supplied to Site must comply with all relevant safety regulations and requirements and be maintained in safe and proper working condition.
- The *Employer* has the right to stop the *Supplier's* use of any electrical equipment or appliance, which in the *Employer's* opinion does not conform to the foregoing.

4.3.2 Security

- The *Supplier* is responsible for security of all personnel tools and equipment on *Site*. This includes fencing off, night watch and access control if required.
- All these measures must be in accordance with any relevant regulations and standards and subject to the *Employer's* approval.

4.3.3 Accommodation and transportation of Employees

- The *Supplier* is responsible for the provision of accommodation or meals for all personnel on Site. The cost thereof to be included in his Price.
- The *Supplier* is responsible for the provision of transportation for all personnel to Site, from Site and on Site. The cost thereof to be included in his Price.

4.3.4 Offices, Workshops and Stores

- The *Supplier* provides, erect and maintain for his own use, **any additional office accommodation and stores he requires** for and Equipment Hire, together with drainage, lighting, heating, and hot and cold water services as required.
- The *Supplier* is also responsible for all security and access arrangements that he considers necessary for any additional office accommodation and stores he requires
- The *Supplier* provides at his own cost, all connection fittings, pipework, temporary plumbing, and pumps necessary to lead the water from the point of supply to the various points where it is required, maintain same and remove on *completion*. Such fittings must be compatible with the *Employer's* fittings so that galvanic corrosion of pipework is prevented.

4.3.5 Sanitary Facilities

- The *Employer* makes available to personnel, the reasonable use of sanitary facilities on Site.
- The *Supplier* provides service, maintain and remove on *completion* any additional facilities that are required.

C4 Site Information

4.4.1 Health, Safety and Environmental Requirements

Requirements of OSHACT no.5 of 1993 must be adhered to at all times during the site installation work. Waste material should be disposed off using the Lethabo waste procedure. Construction and regulation requirements must be adhered to at all times. The installation contractor SHE coordinator must compile a SHE file that will be audited by Safety Risk Management before site work commences. Prior to commencement of site installation work, the contractor

- The *Supplier* and his subcontractors ensure at all times compliance with safety regulations imposed by any Act of Parliament, ordinance or any regulation or by-law of any local or statutory authority.

Occupational Health and Safety Act (Act of 1993-Section 37)

- The *Supplier* shall comply with:
 - a) The Occupational Health and Safety Act, 1993, and all Regulations made there under;
 - b) All Eskom Safety and Operating Procedures listed.
 - c) Lethabo site procedure LBA 00055 Rev 2.
- The *Supplier* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorized in terms thereof and who have received sufficient training to ensure that they can comply therewith.
- The *Supplier* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.
- The *Supplier* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract. The person so appointed shall, on request:
- Eskom may, at any stage during the currency of this agreement, be entitled to:
 - a) do safety audits at the *Supplier's* premises, its work-places and on its employees;
 - b) refuse any employee, sub-contractor or agent of the *Supplier* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualified in terms of the Act;
 - c) issue the *Supplier* with a work stop order or a compliance order should Eskom become aware of any unsafe working procedure or conditions or any non-compliance with the Act, Regulations and Procedures referred to in the above by the *Supplier* or any of its employees, sub-contractors or agents.

- No extension of time will be allowed as a result of any action taken by Eskom in terms of the above and the *Supplier* shall have no claim against Eskom as a result thereof. Furthermore, no amendments to the Act or Regulations or reasonable amendment to Eskom's Safety and Operating Procedures will entitle the *Supplier* to claim any additional costs incurred in complying therewith from Eskom.

Safety 4.4.4 Local Safety Procedures

The *Supplier* adheres to all local procedures. A list of local procedures is available from the *Employer* on request.

4.4.5 Incidents / Accidents

- Incidents and accidents must be reported and to the *Employer* within 24 hours.
- First aid must be made available by the *Supplier*. Alternatively use can be made of the Lethabo medical centre at a fee. The availability of the *Supplier's* own first aid does not relieve the *Supplier* of his obligation to report and investigate the incident.

4.4.6 Fire Prevention

- Fire prevention and protection requirements to which Contractors must comply, are detailed in LBA 00030.

4.4.7 Protective Equipment and Clothing

- The *Supplier* supplies his own personal protective equipment to personnel with logos on as necessary.
- The *Supplier* is also responsible to inspect and maintain such equipment as required in terms of the OHSACT and local procedures.

4.4.8 Inspection of Equipment

- The *Supplier's* equipment is inspected by an authorised Eskom employee on arrival at the site.
- A list of all lifting equipment and electrical equipment must be submitted to the *Employer* at least 2 days prior to the occupation date. This list must indicate the unique number and description of the equipment and any certificates that are required.

14. Requirements for the program

- The *Contractor* shall submit a program, compiled in Microsoft Project or similar program, which will provide details of the list of activities and the duration of each activity.
- A list of activities and duration of each shall be made available after an instruction to commence work is supplied to the *Contractor* by the *Employer's Representative*.
- All activities and requirements for interfaces between the *Contractor* and *Employer* shall be listed in the program.
- The program shall be updated weekly and will be used to manage all installation activities.
- The *Contractor* submits a bar chart program one week after award of the contract showing the following:
 - The early start and early completion date of each activity.
 - The late start and late completion of each activity.
 - Planned completion.

- The order and planning of operations which the *Contractor* plans to do in order to provide *the works*.
- The *Contractor* prepares and submits an update, seven days after the start date, showing actual progress and the effect upon the remainder of the activities to be completed.
-

14.1 Use of standard forms

The *Contractor* shall use the following standard form and all the forms shall be requested from the *Employer* when needed:

- DCC 333 - *Employer's* Assessment
- DCC 367 – Event Register
- DCC 368 – Completion Certificate
- DCC 370 – Access Certificate
- DCC 371 – Notification of Defect
- LFM 1007 – Quality Control for *Contractor*

14.2 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

Name and address of the *Contractor*.
 The contract number and title;
Contractor's VAT registration number;
 The *Employer's* VAT registration number 4740101508;
 The total Price for Work Done to Date which the *Contractor* has completed;
 Other amounts to be paid to the *Contractor*;
 Less amounts to be paid by or retained from the *Contractor*;
 The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
 The original copy of an invoice shall be send to the *Employer's* accounts payable section (APS).

14.3 Records of Defined Cost

- In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, Plant and Materials, work subcontracted by the *Contractor* and Equipment. [See clause 11.2(5) and 63.2].
- The *Contractor* shall keep all the original invoice and these invoice shall be supplied to the *Employer* shall the need arise.

15. Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

- Refer to conditions of tendering.

16. BBBEE and preferencing scheme

- Refer to conditions of tendering.

17. Others

- The *Contractor* shall use one-way traffic method during construction.
- The 2 way radios and stop & go signs or robots shall be used.

- All road construction signs shall be in place.
- The work shall be conducted only during the day.
- No work shall be conducted during the rainy day, the attached weather forecast shall be used as base for planning.
- Regular auditing of the *Contractor's* SHE file and works by the *Employer* shall be conducted. Failure to comply shall result in work stoppage subsequently termination of contract.
- The *Contractor* shall provide the competent construction supervisor as per construction regulations.
- This supervisor shall have a minimum of a Civil Engineering National Diploma and a minimum three years roads experience.
The *Contractor* shall have the Snr. Civil Engineer with a four-year degree and a minimum of three years roads experience. This Engineer shall inspect the works at least once a week and he/she shall be available to hold the meetings with the *Employer* if the need arise.

18. Standard Specifications

DOCUMENT NO.	REV.	TITLE	ATTACHED
LBA 00030	2	Safety with which contractors are to conform at Lethabo Power Station	Y
LBA 00040	0	Lethabo Environmental Procedure	Y
LBA 00049	0	Procedure for Commissioning of New/Modified Plant	Y
LBA 00054	1	Hazardous waste storage and removal procedure	N
LBA 00067	0	Health, Safety and Environmental Specification for Contractors	Y
LBA 00085	1	Master Permit to Work for declared major outages	Y
LBA 00108	0	Contractor's site administration	N
LBT 00015	0	New or Modifications to Electrical Plant Requirements	N
LBT 00017	0	Limited Access Register Procedure	N
GGR0992		Plant Safety Regulations for Lethabo Power Station	N
LBA0060		Change Management Procedure	N
ESKASAAU7	0	Quality Requirements for the Procurement of Assets, Goods and Services	N
LBA00135	0	Control & Prevention of asbestos exposure at Lethabo	N
PS053	1	Intellectual Property	N
LBA00172		The use and control of solvents and degreasers	N

19. NEMA Clauses

National Environmental Management Act (Act No.107 of 1998)

In carrying out his obligation as the mandatory to the Employer for this contract in terms of the National Environmental Management Act No. 107 of 1998, the Supplier ensures that he complies with the Act when Providing the Services or using plant, materials or equipment.

19.1 Permit to Work System

- NO work shall be carried out without a "PERMIT TO WORK"
- The *Contractor's* Responsible Person must satisfy himself that all sources of possible danger are isolated. Details of the Permit to Work system can be found in the Plant Safety Regulations for Lethabo Power Station, Eskom OPR 3305.
- A Master Permit to Work is used on declared major outages, details can be found in local procedure LBA 00085. Permit changes are made during the dead time, if it is required by the *Contractor* that a certain supply be made available or plant tested than this can be applied for at the Project Management Meeting at least 1 day in advance.
- Plant with a prohibitive sign attached may only be operated by appointed Eskom personnel. Any *Contractor* employee found tampering with such plant will be permanently removed from Site.

19.2 Safety Induction Course

- All the employees of the *Contractor* must attend a safety induction course before they will be allowed to work on the Site. It is the responsibility of the *Contractor* to ensure that all employees have attended the safety induction.
- A list of employees requiring safety induction must be submitted at least 2 days in advance of arrival on site with the date and time of arrival so that the safety induction can be arranged.

19.3 IBI Awareness Techniques

- "To prevent incidents and ensure continuous improvement of Lethabo Power Stations business performance in all areas affecting safety, reliability and production, it is expected of all CONTRACTORS service personnel, to attend a three(3) hour training session on Integrated Business Improvement Awareness, which has to be done as soon as work has commenced;
This is to ensure familiarisation and use of error-prevention tools/techniques inclusive of, Pre and Post-job briefs, Risk Assessments, Self-checks (STAR principle), Job observations, Effective communications e.g.3- way, Questioning attitude, Procedural adherence, Hand overs and other related topics.
- A monthly IBI scorecard to be completed indicating the use of error prevention tools/techniques;
The assigned employee fulfilling the role of IBI representative has to attend the IBI representative's forum fortnightly, on Tuesdays, duration one hour.
- An IBI representative appointed by the Contractor/Supplier/Consultant to attend the IBI Representative Forum One (1) hour every Tuesday (fortnightly).
- IBI Awareness training will be provided by Lethabo Power Station personnel, free of charge, course bookings can be arranged by contacting Rabie Heymans on extension 5094".

19.4 Transportation of passengers: open LDV's:

No *Eskom* employee or *Contractor* would be allowed to transport passengers on the back of open light delivery vehicles (LDV's).

It is a legal requirement to provide safe transportation of *Eskom* and *Contractor* employees – therefore the following will be enforced:

- All passengers must be transported in a closed vehicle with proper and adequate seating, fitted with safety belt for the number of passengers to be transported. NO passengers may be transported on the back of a light delivery vehicle (LDV) whether open or closed.
- Tools and equipment must be properly secured.

- Only authorised drivers may transport passengers.
- Proof must be submitted on request in terms of valid roadworthiness of the Vehicle/s.
- The above must apply to on site and off site transportation of passengers.

19.5 Eskom Life Saving Rules:

Five Life Saving Rules have been developed that will apply to all Eskom employees, agents, consultants and contractors.

- **Rule 1:** Open, Isolate, Test, Earth, Bond, And/Or Insulate before touch - that is any plant operating above 1 000 V.
- **Rule 2:** Hook up at heights - no person may work at height where there is a risk of falling.
- **Rule 3:** Buckle up – no person may drive any vehicle on Eskom business and/or on Eskom premises: unless the driver and all passengers are wearing seat belts.
- **Rule 4:** Be sober (no person is allowed to work under the influence of drugs and alcohol.
- **Rule 5:** Use a permit to work – where an authorization limitations exists, no person shall work without the required permit to work.

19.6 Local Safety Procedures

- The *Contractor* adheres to all local procedures. A list of local procedures are available on request from the *Employer*

19.7 Incidents / Accidents

- Incidents and accidents must be reported and investigated as detailed in LBA 00030. All incidents must also be reported to the *Employer* within 24 hours.
- First aid must be made available either by the *Contractor* or use can be made of the Lethabo medical centre at a fee. The availability of the *Contractor's* own first aid does not relieve the *Contractor* of his obligation to report and investigate the incident in accordance with Lethabo Procedure.

19.8 Fire Prevention

- Fire prevention and protection requirements to which *Contractors* must comply are detailed in LBA 00030.

19.9 Protective Equipment and Clothing

- The *Contractor* supplies his own personal protective equipment to personnel as necessary to carry out the works and the Contractor shall ensure that all overalls for his staff have clearly identifying company Logo's. Cost to be stipulated in the Price List – health and Safety Cost.
- The *Contractor* is also responsible to inspect and maintain such equipment as required in terms of the OHSACT and local procedures.

19.10 Inspection of Equipment

- The *Contractor's* equipment is inspected by an authorized Eskom employee on arrival at the site.
- The following documentation is required to accompany the equipment where applicable: copies of all test certificates and maintenance records.
- Lifting equipment and electrical equipment must be marked with a unique number, code or colour code for identification. If the equipment is found to be in an unsatisfactory condition or if insufficient maintenance has been carried out on the equipment then it will not be approved for use on Site. A list of all lifting equipment and electrical equipment must be submitted to the *Employer* at least 2 days prior to the occupation date. This list must indicate the unique number and description of the equipment.
- Training of operators must comply with the Works Information and statutory requirements.

19.11 Documentation

The *Contractor* is responsible to have the following documentation available on site in accordance with LBA 00030:

- A copy of the OHSACT.
- Copies of all site accident report forms as required by the OHSACT.
- Copies of minutes of health and safety meetings held on site.
- Copies of inspection reports produced by the accident prevention officer.

20. Environmental Policy and Waste Handling

Lethabo Environmental Policy LBPS010 must be adhered to.

20.1 Disposal of Waste

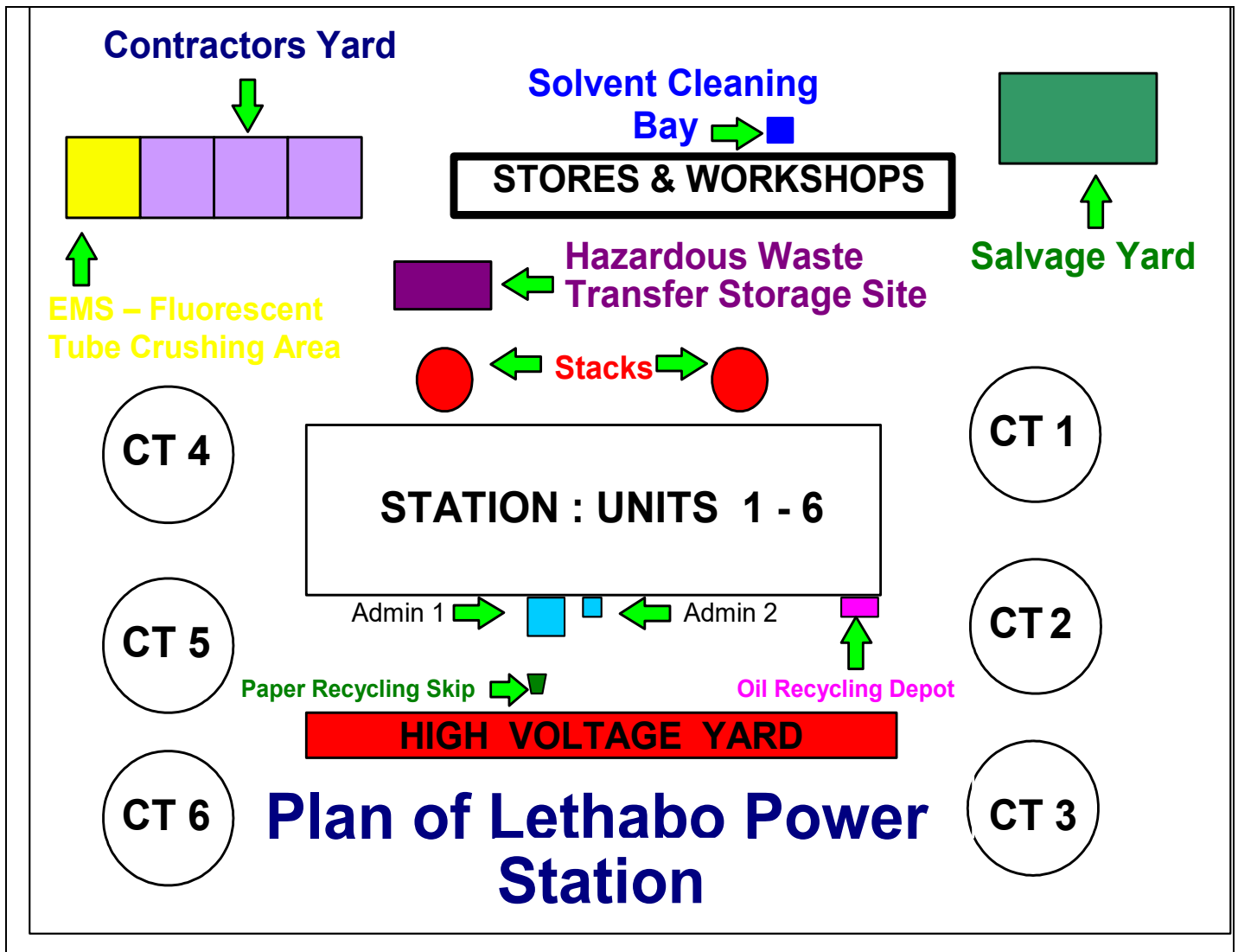
Waste shall be removed promptly to the designated deposit areas. No stockpiling will be permitted.

- Domestic waste to the white waste bins
- Production waste in the marked bins i.e. coal and ash only
- Paper and cans to their respective recycling bins
- Contact Civil Engineering for the disposal of building rubble
- Scrap metal, Wood & Rubber, Redundant Valves, Pipes, Equipment etc. to be placed in the marked bins in the new Salvage Yard. Solvents and cloths used to the Cleaning Bay.

Accommodation of Employees

- The *Contractor* is responsible for the provision of accommodation or meals of his own personnel, and the cost thereof to be included in his *Price*.
- The *Contractor* is responsible for the provision of transportation for all Personnel to site, from site and on Site.

Location



20.2 Access

- The *Employer* provides access to the *Suppliers'* personnel and equipment.

- If the *Employer* can not provide access, then the *Supplier* makes his own assessment of, and allows in his rates for those access problems due to confined and restricted areas, existing structures and equipment, etc., which may be encountered.
- No extra payment or claim of any kind will be allowed on account of difficulties of access for the requirements of working adjacent to or in the same area as other *Suppliers* operations.

20.3 Access to and Departure from the Site

- The *Supplier* allows in his price and program for delays at the security gate.
- The *Employer* reserves the right for its Security personnel to search persons or vehicles entering or leaving the premises.
- This includes briefcases and toolboxes.

20.4 Equipment or Material Access and Removal

- The *Supplier* ensures that all equipment and materials brought through the security gate is signed in at the main security gate on an OV18 form.
- If the equipment or material is to be removed the same day then the OV18 form will need to be produced at the gate when leaving the site.
- If the equipment or material is removed after this time then a Non Returnable Gate Release needs to be obtained from the *Employer*.
- The *Supplier* is not allowed to remove any equipment or materials from site without producing the relevant OV18 forms or the equipment lists

20.5 Access for and Interface with other Contractors

- The *Employer* provides access for, and interface with, other *Suppliers* to the *Suppliers'* personnel and equipment
- If the *Employer* cannot provide access and interface, then the *Supplier* makes his own assessment of the problems and difficulties which may be encountered
- No extra payment or claim of any kind will be allowed on account of providing reasonable access to, and interfacing with others.

20.6 Materials delivered to the *Employer* by the *Supplier* as part of Providing the Services.

- Before access is given to the Site, the *Supplier* is to provide a list of all equipment as supplied by the *Supplier*.

20.7 Restrictions on the use of materials provided by the *Supplier*.

- Any Material provided by the Supplier is restricted to use and copying as required for of this Contract only.

20.8 Form of the programme and procedure for submitting and revising it

- The *Supplier* is to provide the *Employer* on completion of the Task Order a report in the form of a database or manually.

20.9 Drawings

- The *Employer* supply to the *Supplier* on request, any drawings that may be required to provide the Services.

20.10 Site Information

The Site is at Lethabo Power Station situated \pm 18 km South of Vereeniging on the Viljoensdrif - Deneysville Road, Free State. Access to the site will be via the main security gate only. The *Employer* informs the *Supplier* of the access procedures, and it should be expected that such procedures may change depending on the prevailing security situation.