



## NEC3 Term Service Contract (TSC3)

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

**and [Insert at award stage]  
(Reg No. \_\_\_\_\_ )**

**for Condition Monitoring and Laser Alignment Services  
at Tutuka Power Station for a period of 60 months**

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**Part C2 Pricing Data**

**Part C3 Scope of Work**

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**CONTRACT No. [Insert at award stage]**

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## **PART C1:      AGREEMENTS & CONTRACT DATA**

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### **Contents:**

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#### **C1.2a Contract Data provided by the *Employer***

#### **C1.2b Contract Data provided by the *Contractor***

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## 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:

### Condition Monitoring and Laser Alignment services at Tutuka Power Station for a period of 60 months

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	The offered total of the Prices exclusive of VAT is	R [•]
	Sub total	R [•]
	Value Added Tax @ 15% is	R [•]
	The offered total of the amount due inclusive of VAT is <sup>1</sup>	R [•]
	(in words) [•]	

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:

<sup>1</sup> 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 and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the  
Employer**

(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**

No.	Subject	Details
1	[•]	[•]
2	[•]	[•]

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

Date

## C1.2 TSC3 Contract Data

### Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		<b>A: Priced contract with price list</b>
	dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	and secondary Options	
		<b>X1: Price adjustment for inflation</b>
		<b>X2: Changes in the law</b>
		<b>X18: Limitation of liability</b>
		<b>X19: Task Order</b>
		<b>Z: Additional conditions of contract</b>
	of the NEC3 Term Service Contract April 2013 <sup>2</sup> (TSC3)	
10.1	The <i>Employer</i> is (name):	<b>Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa</b>
	Address	<b>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</b>
	Tel No.	<b>[•]</b>
	Fax No.	<b>[•]</b>
10.1	The <i>Service Manager</i> is (name):	<b>[•]</b>
	Address	<b>[•]</b>
	Tel	<b>[•]</b>
	Fax	<b>[•]</b>

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 [www.ecs.co.za](http://www.ecs.co.za)

e-mail		[•]
11.2(2)	The Affected Property is	<b>Tutuka Power Station</b>
11.2(13)	The <i>service</i> is	<b>Condition monitoring and Laser balancing services at Tutuka Power Station for a period of 60 months</b>
11.2(14)	The following matters will be included in the Risk Register	<b>As per Annexure C in this contract document</b>
11.2(15)	The Service Information is in	<b>Part 3: Scope of Work and all documents and drawings to which it refers.</b>
12.2	The <i>law of the contract</i> is the law of	<b>the Republic of South Africa</b>
13.1	The <i>language of this contract</i> is	<b>English</b>
13.3	The <i>period for reply</i> is	<b>48 hours</b>
2	<b>The Contractor's main responsibilities</b>	<b>Data required by this section of the core clauses is also provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data</b>
21.1	The Contractor submits a first plan for acceptance within	<b>Will be agreed between Service manager and the Contractor after the awarding of the contract</b>
3	<b>Time</b>	
30.1	The <i>starting date</i> is.	
30.1	The <i>service period</i> is	<b>60 Months</b>
4	<b>Testing and defects</b>	<b>There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data</b>
5	<b>Payment</b>	
50.1	The <i>assessment interval</i> is	<b>1<sup>st</sup> day of each successive month.</b>
51.1	The <i>currency of this contract</i> is the	<b>South African Rand</b>
51.2	The period within which payments are made is	<b>30 days</b>
51.4	The <i>interest rate</i> is	<b>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 Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</b>
		<b>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the</b>

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	<b>Compensation events</b>	Works or Tasks not included in the Scope of Work or annexures or appendices
7	<b>Use of Equipment Plant and Materials</b>	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
8	<b>Risks and insurance</b>	As per NEC3 TSC core clauses shall be applied for insurances
80.1	These are additional <i>Employer's</i> risks	1. [•] 2. [•] 3. [•]
9	<b>Termination</b>	NEC3 core clause 9 shall be applied for termination.
10	<b>Data for main Option clause</b>	
A	<b>Priced contract with price list</b>	C2.2
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	
53.3	The <i>Contractor's</i> share is assessed on (dates)	[•]
11	<b>Data for Option W1</b>	
W1.1	The <i>Adjudicator</i>	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	[•]



Tel No. [•]

Fax No. [•]

e-mail [•]

W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ) or its successor body.
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	the Chairman for the time being or his nominee
	- if the arbitration procedure does not state who selects an arbitrator, is	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 Price Adjustment Factor are:	<table> <tr> <th>proportion</th><th>linked to index for</th><th>Index prepared by</th></tr> <tr> <td>0.</td><td>[•]</td><td>[•]</td></tr> <tr> <td>0.</td><td>[•]</td><td>[•]</td></tr> <tr> <td>0.</td><td>[•]</td><td>[•]</td></tr> <tr> <td>0.</td><td>[•]</td><td>[•]</td></tr> <tr> <td>0.</td><td>[•]</td><td>[•]</td></tr> <tr> <td>15</td><td>non-adjustable</td><td></td></tr> <tr> <td>1.00</td><td></td><td></td></tr> </table>	proportion	linked to index for	Index prepared by	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	15	non-adjustable		1.00		
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X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.																								
X17	Low service damages																									
X17.1	The <i>service level table</i> is in	Annexure B on the last pages of this document																								
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																									

		<b>R0.0 (zero Rand)</b>
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	<b>the amount of the deductibles relevant to the event</b>
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	<b>The greater of</b> <ul style="list-style-type: none"> <li>the total of the Prices at the Contract Date and</li> <li>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</li> </ul>
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	<b>the total of the Prices other than for the additional excluded matters.</b>  <b>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</b>  <b>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</b> <ul style="list-style-type: none"> <li>Defects due to his design, plan and specification,</li> <li>Defects due to manufacture and fabrication outside the Affected Property,</li> <li>loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials),</li> <li>death of or injury to a person and</li> <li>infringement of an intellectual property right.</li> </ul>
X18.5	The <i>end of liability date</i> is	<b>[•] months after the end of the <i>service period</i>.</b>
<b>X19</b>	<b>Task Order</b>	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	<b>2 days of receiving the programme</b>
<b>X20</b>	<b>Key Performance Indicators (not used when Option X12 applies)</b>	
X20.1	The <i>incentive schedule</i> for Key Performance Indicators is in	<b>Annexure C on the last page of this Contract Document. No incentives will be paid out for Key performance indicators. KPI's are there to monitor performance of this contract</b>
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	<b>6 months interval</b>
<b>Z</b>	<b>The <i>additional conditions of contract</i> are</b>	<b>Z1 to Z14 always apply.</b>

**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.

**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 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 Service.
- 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 Confidentiality**

- Z4.1 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.
- Z4.2 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*.
- Z4.3 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.

Z4.4 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*.

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

**Z5 Waiver and estoppel: Add to core clause 12.3:**

Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *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.

**Z6 Health, safety and the environment: Add to core clause 27.4**

Z6.1 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 2014 (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.

Z6.2 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.

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

Z7.1 Within one week of receiving a payment certificate from the *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.

Z7.2 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.

- Z7.3 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.

## **Z8 Notifying compensation events**

- Z8.1 Delete the last paragraph of core clause 61.3 and replace with:

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices.

## **Z9 Employer's limitation of liability**

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 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 in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

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

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

## **Z11 Ethics**

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

<b>Affected Party</b>	means, as the context requires, any party, irrespective of whether it is the <i>Contractor</i> or a third party, such party's employees, agents, or Sub <i>Contractors</i> or Sub <i>Contractor's</i> employees, or any one or more of all of these parties' relatives or friends,
<b>Coercive Action</b>	means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
<b>Collusive Action</b>	means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
<b>Committing Party</b>	means, as the context requires, the <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or Sub <i>Contractors</i> or the Sub <i>Contractor's</i> employees,
<b>Corrupt Action</b>	means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
<b>Fraudulent Action</b>	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
<b>Obstructive Action</b>	means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
<b>Prohibited</b>	means any one or more of a Coercive Action, Collusive Action Corrupt Action,

**Action** Fraudulent Action or Obstructive Action.

- Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
- Z11.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.
- Z11.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

**Z12 Insurance**

**Z 12 .1 Replace core clause 83 with the following:**

**Insurance cover 83**

- 83.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.
- 83.2 The *Contractor* provides the insurances stated in the Insurance Table A from the *starting date* until the earlier of Completion and the date of the termination certificate.

**INSURANCE TABLE A**

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the <i>Contractor</i> to the <i>Employer's</i> property	The replacement cost where not covered by the <i>Employer's</i> insurance.  The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance.  The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the <i>Employer's</i> insurance.  The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i>	<b><u>Loss of or damage to property</u></b> The replacement cost

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	<b><u>Bodily injury to or death of a person</u></b> The amount required by the applicable law.
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

**Z 12.2 Replace core clause 86 with the following:****Insurance  
by the  
Employer**

86

86.1 The *Employer* provides the insurances stated in the Insurance Table B**INSURANCE TABLE B**

<b>Insurance against or name of policy</b>	<b>Minimum amount of cover or minimum limit of indemnity</b>
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document



### **Z13 Nuclear Liability**

- Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

### **Z14 Asbestos**

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

<b>AAIA</b>	means approved asbestos inspection authority.
<b>ACM</b>	means asbestos containing materials.
<b>AL</b>	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
<b>Ambient Air</b>	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
<b>Compliance Monitoring</b>	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
<b>OEL</b>	means occupational exposure limit.
<b>Parallel Measurements</b>	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
<b>Safe Levels</b>	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
<b>Standard</b>	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.



**SANAS** means the South African National Accreditation System.

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

- Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.
- Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos *Contractor*, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

## C1.2 Contract Data

### Part two - Data provided by the *Contractor*

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 people are:	
	1 Name: Job: Responsibilities: Qualifications: Experience:	
	2 Name: Job: Responsibilities: Qualifications: Experience:	
CV's (and further key person's data including CVs) are in _____.		
<b>A</b>	<b>Priced contract with price list</b>	
11.2(12)	The <i>price list</i> is in	
11.2(19)	The tendered total of the Prices is	<b>R</b>

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title
C2.1	Pricing assumptions: Option A
C2.2	The <i>price list</i>

## • C2.1 Pricing assumptions: Option A

### How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract (TSC3) core clauses and Option A states:

<b>Identified and defined terms</b>	11	
	11.2	(12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.
		(17) The Price for Services Provided to Date is the total of  the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the <i>Contractor</i> has completed by the rate.
		(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both.

### Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

### Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering *Contractor* needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

### Preparing the *price list*

Before preparing the *price list*, both the *Employer* and tendering *Contractors* should read the TSC3 Guidance Notes pages 14 and 15. In an Option A contract, either Party may have entered items into the *price list* either as a process of offer and acceptance (tendering) or by negotiation depending on the nature of the service to be provided. Alternatively the *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in the *price list* to be prepared and priced by him.

It is assumed that in preparing or finalising the *price list* the *Contractor*:

- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;
- Has listed and priced items in the *price list* which are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate item within the Prices or rates of other listed items in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.
- Understands there is no adjustment to items priced as lump sums if the amount, or quantity, of work within that item later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the (lump sum) Prices is as a result of a compensation event.

### **Format of the *price list***

(From the example given in an Appendix within the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering *Contractor*.

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

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

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

## • C2.2 the *price list*

Item nr	Description	Unit	Expected Quantity	Rate	Price
<b>1</b>	<b>Normal Rates</b>				
<b>2</b>	Oil analysis (as detailed in the scope of work)	Monthly	12		
<b>3</b>	Vibration monitoring (as detailed in the scope of work)	Monthly	12		
<b>4</b>	Infrared Thermography (as detailed in the scope of work)	Monthly	12		
<b>5</b>	Ultrasound (air, steam, gases including physical inspection and water leak survey)	Monthly	12		
<b>6</b>	Laser Alignment	Hr	As required		
<b>7</b>	<b>Overtime Rates (normal)</b>				
<b>7.1</b>	Supervisor (Level 3 Analyst)	Hr	As required		
<b>7.2</b>	Analyst Level 2	Hr	As required		
<b>7.3</b>	Analyst Level 1	Hr	As required		
<b>8</b>	<b>Overtime rates (public holidays &amp; Sundays)</b>				
<b>8.1</b>	Supervisor (Level 3 Analyst)	Hr	As required		
<b>8.2</b>	Analyst Level 2	Hr	As required		
<b>8.3</b>	Analyst Level 1	Hr	As required		

The total of prices

**Note:**

- Tenderers shall allow in their rates for the cost of all materials, consumables, labour, transport, profit, and all other costs which may be incurred in the proper execution of work.
- The business unit will provide vibration monitoring equipment( Data Loggers) and tenderers shall allow their rates for the cost of the following equipment, thermal camera, laser alignment equipment and the ultrasound

This could include but not limited to levies payable to any industrial councils, associations, etc, that may be due to by the tenderer, the cost of compliance to legislation, for instance regarding Health and Safety, compliance with labour legislation, etc

## PART 3: SCOPE OF WORK

Document reference	Title
	This cover page
C3.1	<i>Employer's Service Information</i>
C3.2	<i>Contractor's Service Information</i>

# EMPLOYER'S SERVICE INFORMATION

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## **1 Description of the service**

### **1.1 Executive overview**

The condition monitoring services scope of works covers all the six (6) units from unit 1 to 6, which includes the Ash Handling Plant, Coal stock yard and the Water treatment plants at Tutuka Power Station. The condition monitoring service includes, vibration monitoring, oil analyses, infrared thermography, ultrasound testing and laser alignment

### **CONDITION MONITORING PROCESS**

The general steps in condition monitoring are stated below and must be adhered at all material times

#### **1.1.1 Plan**

1.1.1.1 It requires compiling a master database of equipment that need monitoring and highlight a practical work sequence. This database must be continuously updated whenever changes occurs. The schedule used for monitoring will sourced from SAP system. .

#### **1.1.1.2 The Equipment master Database Management (GST 36-1095)**

Vibration analysers/data collectors come with a software for data management. The accepted method of collecting and analysing vibration data is to set up a data base that entails machine information, measurement points, measurement orientations, machinery fault parameters and measurement parameters.

Data base shall be created on a server where controlled access shall be granted and any changes or optimisation to the data base shall be formally recorded. When condition monitoring services are outsourced, the contractor shall store data and reports on the existing server.

The equipment master data base must hold the following categories of data saved on a shared drive

- o Identity and specifications
- o Function and operating conditions
- o Measurement parameters
- o Measurement points
- o Alarm thresholds
- o Measurement history

#### **1.1.2 Inspect and Measure/Data Collection**

When condition measurements are taken, the test equipment must operate under normal conditions with valid calibration certification. Measuring equipment may be connected to equipment either by required sensors and some does not need physical contact/connection to make measurements.

**1.1.3 Analyse**

Condition monitoring data must be assessed to determine a diagnosis and severity of a condition. If no fault is detected the results must still be reported. If any uncertainty is detected further special diagnosis is required to determine the root cause. A prognosis must be made of how any non-conformance is likely to impact machine condition, operations, safety and the environment as may be relevant. Analysis methods per technique consistent with Eskom latest reviewed standards (38-1095), are highly recommended.

**1.1.4 Diagnosis and Prognosis**

Any failed condition must be accurately analysed to diagnose any possible fault. After determination of the fault the route to failure must be determined. More than one set of measurements using either same or different techniques is recommended in such cases, the faults must be combined and addressed holistically to give a consolidated view of the condition, diagnosis and prognosis

**1.1.5 Recommend/Specify corrective work**

For every fault detected, a sound and accurate recommendation has to be made. All recommendations must be aimed to resolve the root cause of the alarm or detected failure, the urgency for action must also be indicated on the recommendation, with defects raised on SAP with relevant priority based on its urgency.

**1.1.6 Report**

Each equipment monitored must have a report after each monitoring event. These reports indicate adherence to the scope of work summarising equipment categories and overall conditions of each equipment. It will indicate:

- o Which equipment is due for monitoring?
- o Which equipment was checked?
- o The condition status of each place of equipment, i.e. conforming or non-conforming.

The results of each condition monitoring event must be communicated to all stakeholders. Analysis methods per technique consistent with the Employer's standards (**36-53 and 36-1095**). The relevant stake holder groups and their interest are given in Table below:

Condition monitoring Communication list and their Interest stakeholder group	Interest
<b>Performance and Test department</b>	Ensure service provision (source and manage the service). In some cases the maintenance department performs this role
<b>System Engineers</b>	Are responsible for plant health
<b>Maintenance department</b>	Are responsible for carrying out required repairs. In some cases the

the maintenance department also ensures service provision of condition monitoring

**Work management department**

Are responsible to plan and schedule work arising from condition monitoring

**Services Manager**

Handles all contract and administrative matters

**Scope of Work**

Routine monitoring of plant equipment/components can be done as per the following standard

- Vibration based condition monitoring standard GST 36-1095 which is based on ISO 10816, ISO 13373 and ISO 18436. Attached
- Oil analysis as per attached sampling program referred to in the attached scope of work
- Infrared thermography standard as per attached. Unique number 240- 129001393, attached

**Physical Inspections** – To conduct the actual tests/data collection in the plant, it is obligatory to inspect the plant as this activity is considered to the most basic and critical aspect of conditioning monitoring therefore it is vital to always inspect, note and document all change or abnormality noted in all rotating or condition monitored machines.

All results collected and a condition observed allows a comparative analysis against the previous and the future measurements. Plant inspection is classified into three sensual modes (touch, hear, see & even smell) i.e., heat generated, abnormal noises, looseness/leaks, and any abnormal or inadequate lubricant related smell.

**Ultrasonic Testing and requirements**

In case where steam, gas and air leak is suspected or mechanical inspection is required, the contractor will be required to qualitatively, quantitatively and analytically trace the exact location of the leak in the plant and give advice to all relevant stake holders

**Test description**

The instrument must be able to accurately direct the short wave and direct the exact location of the signal by separating the signal from normal operating plant noises.

The applications for ultrasonic detectors fall under the following categories:

- Mechanical inspection: cavitation in pumps, compressor valve leakage, faulty gears, pulley bearings wear, excessive rubbing and poor connections
- Leak detection: steam, air, and gases.

Ultrasound tests must be done on all the areas of the plant to determine the air leaks, steam leaks and water leaks.

**Lubricating Oil Analysis to be carried out by the Supplier as per the criteria and program below.**

**As per Eskom Guideline – GGL 36-53 - IN-SERVICE MONITORING OF LUBRICATING OILS AND HYDRAULIC FLUIDS**

- 2.1. All required routine oil samples as per oil analysis program.
- 2.2 All required ad-hoc oil samples as per request and agreement with user.
- 2.3 Full Oil analysis profile of each sample analysed to include the following parameters:
  - Oil Condition - Viscosity @ 40°C.  
TAN (mg KOH/g).
  - Contamination - Moisture Content (ppm or %) - (Karl Fischer or Dean and Stark methods) Particle Count (ISO 4406) and Wear Debris Analysis.
  - Wear Metals - Concentration of wear metals (Fe, Cr, Ni, Mo, Cu, Pb, Sn, Al, Si) present in the oil (ppm).
  - Contaminants - Concentration of contaminants (Na, Li, Ca) present in the oil (ppm).
  - Additives - Concentration of additives (Sa, Mg, Zn, P, S, K) present in the oil (ppm).
  - Comment - Recommendations and actions to be taken (defects are to be submitted as and when required).
  - Records - Machine running hours, lubricant changes and top-ups, filter changes (FRF plant only) etc..
- 2.4 Analysis results to be forwarded to client electronically (email) and be available for report generation and trending via the contractors supplied on-site database. Or Supplier to provide access to user to his Database.
- 2.5 Contractors supplied database to be flexible for future upgrades and manual inclusion of onsite oil analysis results.
- 2.6 Manage and maintain database.
- 2.7 Contractor must supply own sampling equipment (thief sampler, sample bottles, consumables etc.).

**2.1.1 Sampling Equipment Required**

1. Sampling Gun (Thief sampler)
  - 1 x Gun equipped with a 6 mm plastic tube for lower viscosity oils.
  - 1 x Gun equipped with a 10 mm plastic tube for higher viscosity oils.
- 2.1.2 Small shifting spanner for removing plugs from drain/sampling valves.
- 2.1.3 Waste container to retain oil during flushing of sampling points.
- 2.1.4 Lint-free cloth for wiping-down sampling points, spilled oil etc.

**3. Analysis Parameters**

Oil samples are forwarded to various laboratories for testing to prescribed requirements and the results are then interpreted by the Lubricant Monitoring function and corrective action is taken as and when required. Precise records are kept of any factors which may influence the results obtained for the plant being monitored such as recent plant overhauls, oil filter changes, oil top-up rates, oil drains or plant failures. These factors are considered when interpreting the oil analysis results. Lubricants and Control fluids are tested for all of or a combination of the following parameters:-

- **Viscosity:-** Property of a liquid by virtue of which it offers resistance to flow measured at 40 °C (cSt).
- **Moisture Content:-** This test covers the determination of water content in petroleum products (ppm or %)

### **Alignment of all rotating equipment at Tutuka Power Station.**

All the -mentioned activities shall be performed at Tutuka power station whether units are running, cold reserve or on extended cold reserve/cold storage

### **Requirements for Non routine monitoring of rotating equipment:**

- Data collection
- Analyse data
- Assistance during outages and cold/enhanced cold reserve periods
- Capture and trend information
- Provide maintenance predictions and recommendations
- Establish root causes of adverse trends
- Compile detailed reports of the above
- Such reports shall be submitted to Tutuka Power Station within a maximum of five working days from data collection
- All the above-mentioned activities shall be performed at Tutuka Power Station whether units are running, cold reserve or extended cold reserve/cold storage and could include interim reports as well as final reports.
- Oil analyses as requested
- Alignment of machinery as requested
- Loading of defects on SAP

### **Additional Services**

The following additional services will be provided by the supplier on request

Special investigation (vibration, analysis, ultrasonic testing, oil analysis, thermography and laser alignment)

### **Outage support**

The contractor can be requested to perform all the above-mentioned work on a machine that is on outage will be performed with no extra cost as long as work is performed inside the normal working hours by the site personnel.

If the work on turbines could be performed via remote access or by the people full time on site, during normal working hours, no extra cost will be incurred by Tutuka and will be charged according to the rates as per the

**Note: A detailed scope of work outlining all activities is attached to this contract document**

### ***Employer's requirements for the service***

Contractor must be able to supply services in all areas of Tutuka Power Station.

The supplier will perform all the services necessary to ensure that the plant is monitored in accordance with the agreed standards and procedures. The integrity of the plant data shall continuously be checked and confirmed against history and any applicable standards. ISO 9001:2008 standards will be used as a general guideline for vibration monitoring.

- List of safety equipment: Inspection list, Control list, PPE full protection during activity of alignment and condition monitoring.
- The contractor will supply the equipment required to conduct the laser alignment, thermal scanning and analysis and ultrasonic testing.
- The Contractor must supply all the necessary tools required for oil analysis and organise its own Sanas accredited laboratory for oil analysis. The transporting of the oil samples is included in the contract price.
- Safe work procedure for every activity on the plant
- Need a list of all specifications and calibration certificate for all equipment which will be used for laser alignment and condition monitoring

### **Authorization of persons who will carry out all the testing and analysis**

#### **Level I Analyst**

- Should have at least 30 hours of initial vibration training and a minimum of 6 months (full time) hands on experience regardless of secondary or tertiary education. Should be able to perform range of pre-defined, generally simple single-channel, machinery vibration condition monitoring activities. All activities to be performed under supervision of a level II analyst.
- Personnel classified under level or category 1 shall at least:
  - a) Know basic principles of vibration and recognize different unit of measurement
  - b) Be able to collect data ensuring appropriate standards of repeatability
  - c) Collect reliable identify errors in collected data
  - d) Be able to retrieve pre-defined measurement settings for use with VA equipment and transfer data from an analysis system to a computer – based system
  - e) Able to compare overall or single-value vibration measurements against pre-established alert settings
  - f) Be able to identify deviations from the norm for single-value vibration values and trends

#### **Level II Analyst**

- Level II analyst must have a minimum matric certificate/N3 technical qualification in electrical/mechanical. Must be certified in thermography level II, vibration analysis level II, oil analysis I and laser alignment.
- Personnel classified to category II can perform industrial machinery vibration measurements and basic VA using single-channel measurements, with or without phase trigger signals.
- They require all the knowledge, experience and skills expected of category I, and in addition they shall at least:
  - a) be able to define the measurement activities to be undertaken by a category I individual during routine data collection
  - b) be aware of and capable of using the basic principles of signal analysis and, as such, can define acquisition and analysis settings to collect data appropriate to the machines monitored

- c) be able to perform basic (single channel) impact tests to determine natural frequencies,
- d) be able to interpret and evaluate test results from routine analysis and acceptance tests in accordance with specifications and standards,
- e) be able to diagnose common fault indications and recommend basic corrective actions commensurate with their area of machinery experience including carrying out single-plane balancing of rigid rotors with or without phase,
- f) be able to provide technical guidance to and instruct category I personnel.

### Level III Analyst

Personnel classified as a level III analyst shall have a minimum grade 12/N3 qualification and be certified as a level 3 vibration analyst, thermography level II, oil analysis level II and ultrasonic. The incumbent must also have a minimum of 5 year managerial/supervisory experience.

He/she require all skill and knowledge, experience and skills expected of personnel classified to levels I and II., and in addition shall at least:

- a) be able to design, direct and establish routine condition monitoring programmers and non-routine investigations for the purpose of fault diagnosis,
  - b) be able to specify the appropriate vibration instrumentation hardware, software and processing for portable monitoring systems, permanently installed surveillance systems, and equipment protection systems
  - c) have an in-depth knowledge of the principles and techniques of machinery VA and be able to make initial diagnoses of suspected faults beyond the range of commonly encountered issues. This should include, use of frequency spectra, time waveforms and orbits, transfer functions, basic operating deflection shapes, and acceleration enveloping under both steady state and transient conditions with or without a phase trigger,
  - d) be able to manage condition monitoring programmes, evaluate the alarm sets, write working procedures, and specify vibration acceptance testing procedures,
  - e) be able to indicate and validate machinery corrective actions including in situ two plane rigid rotor balancing,
  - f) be able to recommend restrictions to machine operations,
  - g) be able to understand and direct, when necessary, alternative condition monitoring technologies to verify or investigate issues raised through routine data collection,
  - h) be able to provide technical guidance to and instruct level I and II personnel, and subject to agreement with client, deem them competent to carry out certain duties which would normally be outside the scope of those competencies.
- The proof of qualification must be submitted with tender returnables
  - The Contractor will be supplied with an office with a computer and software for the analysis of the results
  - No Persons will enter any plant without authorisation from service manager. The service manager will ensure that all paperwork for safe work procedure and risk analysis are in place before any activity starts.
  - Eskom will supply a safe working procedure and risk assessment document to be completed and signed by the contract supervisor.



**Note: The minimum required qualifications are stated as per the Condition based monitoring of rotating Auxiliary machine plant machinery, user requirement specification for hardware and software to be applied to handheld condition monitoring.**

## **General**

- Stand by will be required on as and when required basis
- The response time during a call out will be one hour from the time the call is logged at Tutuka Power station.
- Minimum call out charge time will be four hours
- Daily time sheets to be logged and signed by the Employer's Supervisor and Contractor
- Working hours is the Employer's working hours and overtime might be required depending on the workload
- Overtime may only be worked on Service Manager's approval. Areas worked during overtime to be logged on timesheet and handed over to the Service Manager.
- Good housekeeping always. The Contractor must clean and remove all debris after completing a task
- Yearly induction for all personnel
- The contractor will report directly to the Service Manager
- A request for absence from the workplace must negotiated with Employer
- In periods of absence a negotiated substitute must be replaced
- Other outages including GO work as and when required requested my Maintenance
- All extra travelling requested by the Employer is on the Employer's account
- The Employer's Lifesaving rules to be adhered to
- All work undertaken must be done in accordance with workflow service and other things provided by the Employer
- The Contractor will familiarise himself with the plant and dangers/hazards of obstacles in the vicinity of lifting beam and all power- driven machinery that require load testing, as the Employer will not be liable for any occurrence that can lead to a compensation event
- All work done under a permit must be done in accordance with the low Employer's low voltage regulations as stipulated in the handbook on plant safety regulations. This includes the of barricading to cordon-off areas where the Contractor is working and safety signs indicating that men working overhead when doing maintenance and repairs to load/spreading beams
- Load testing must be done by a Qualified Rigger and test certificates must be issued to the Employer on as required basis.
- All lifting gear must have testing certificate, Inspection number and a serial number

### 1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
AP	Accounts Payable
BBBEE	Broad Based Black Economic Empowerment
CC	Cost Centre
CIDB	Construction Industry Development Board
COC	Certificate of Compliance
CPA	Cost Price Adjustment
EMD	Electrical Maintenance Department
HV	High Voltage
ISO	International Organization for Standardization
LAR	Local Access Register
OBL	Outside Battery Limit
L V	Low Voltage (< 1000 V)
ORHVS	High Voltage Regulations
OSHACT	Occupational Health and Safety Act
PIR	Performance Improvement Report
PPE	Personal Protection Equipment
PPFA	Preferential Procurement Policy Framework Act
PPPFA	Preferential Procurement Policy Framework Act
PSR	Plant Safety Regulations
QCP	Quality Control Plan
QMS	Quality Management Systems
RP	Responsible Person
SABS	South African Bureau of Standards
SAMTRAC	Safety Management Training Course
SAP	System Application Products

<b>SDL&amp;I</b>	<b>Supplier Development Localization and Industrialization</b>
<b>SOW</b>	<b>Scope Of Work</b>
<b>TBA</b>	<b>To Be Announced</b>
<b>TBC</b>	<b>To Be Confirmed</b>
<b>WWM</b>	<b>Work Week Management</b>
<b>YTD</b>	<b>Year to date</b>

## 2 Management strategy and start up.

### 2.1 The *Contractor's* plan for the service

- a) To be discussed before each task can be carried out between the *Contractor* and *Employer*.
- b) Programme to be supplied on request on a signed hard copy as well as a soft copy, see Scope of Work.
- c) *The Contractor can start work after the Purchase Order and Task Order has been issued*

### 2.2 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Service Manager* as follows: -

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	TBC	<i>Service Manager's Office</i>	<i>Service Manager and Contractor</i>
Kick-Off Meeting	TBC	Tutuka P/S	<i>Service Manager and Contractor</i>
Assessments meeting	Monthly	<i>Service Manager's Office</i>	<i>Service Manager and Contractor</i>
Overall contract progress and feedback	TBA	Tutuka P/S	<i>Service Manager and Contractor</i>

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

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

- a) Attendance of meetings as required by *Service Manager* such as:
  - Tutuka Power Station *Contractors* Safety Meeting (monthly)
  - Departmental Safety Meetings (monthly)
  - The *Employer's Contractor's* Monthly Safety Meeting
  - Section daily meetings
  - All Assessment meetings
  - Outage meeting as required
  - Any meeting requested by the *Employer* or *Contractor*

Regular meetings of a general nature may be convened and chaired by the *Service Manager* as follows:

Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

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

### **2.3 Contractor's management, supervision and key people**

- a) 1 x Site Manager (Level III analyst)
- b) 2 x Level II analysts,
- c) 2 X Level 1 analysts

### **2.4 Provision of bonds and guarantees**

- N/A

### **2.5 Documentation control**

- a) Each instruction, certificates, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form which can be read, copied and recorded.
- b) Writing is in the *language of this contract*.
- c) Monthly and weekly reports to be discussed compiled and handed in to the *Employer's Supervisor* and *Service Manager* (to be announced by the *Employer*).
- d) All communications must be printed and filed in the *Service Managers* file.

### **2.6 Invoicing and payment**

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 showing the amount due for payment equal to that stated in the *Service Manager's* payment certificate.

The *Contractor* shall include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*.
- The contract number and title.
- *Contractor's* VAT registration number.
- The *Employer's* VAT registration number 4740101508
- Description of *service* provided for each item invoiced based on the Price List.
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.
- Purchase Order number.
- Invoices can only be sent in by e-mail once the GR number is released by the *Employer*
- CPA calculation sheet and the Invoice for CPA (with the GL Account Number [430103] and a cost center number on the Invoice) to be send directly to
- Invoicing and payment procedure to be followed.

## 2.7 Contract change management

- a) Where the *Contractor* does Name Changes, Mergers, Acquisitions, and Cessions the *Employer's* procedure must be followed. (**Eskom Procurement and Supply Management Procedure**)
- b) In a case where one *Contractor* takes over from another *Contractor*, the Site *Service Manager* must be notified in writing immediately.
- c) The *Contractor* does not cede, delegate, or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- d) Changing the Service Information
- e) Access
- f) Provision by the *Employer*
- g) Stopping work
- h) Work of the *Employer* or others
- i) Reply to communication
- j) Changing a decision
- k) Withholding acceptance
- l) Delayed tests or inspections
- m) Change of Affected property
- n) Materials, facilities, etc. for tests
- o) *Employer's* risks
- p) Assumption about Compensation Events
- q) *Employer's* breach of contract

## 2.8 Records of Defined Cost to be kept by the *Contractor*

- N/A

## 2.9 Insurance provided by the *Employer*

- Refer to Contract Data section 8 and Z12.

## 2.10 Training workshops and technology transfer

- a) Induction training to be done before work commences on site
- b) All training required by the *Employer* will be on the *Employer's* account.
- c) Training will also be provided on new equipment to execute scope of work on site.
- d) All Artisans must be trained and authorised in terms of Plant Safety Regulations Responsible Persons (RP) within 6 months after the contract has been awarded.
- e) The *Employer* will provide Plant Safety Regulations (PSR) and ORHVS training necessary for the *Contractor* in order to carry out the works. First training will be on *Employer's* cost, if the *Contractor's* personnel failed the first attempt, the second attempt training will be on *Contractor's* cost.
- f) *Contractor* must be trained on working at heights as per Eskom's standard procedure and training to be on *Contractor's* account.
- g) *Contractor* must be trained on working at confined space as per Eskom's standard procedure and training to be on *Contractor's* account.
- h) The *Employer* will provide Plant Safety Regulations (PSR) and ORHVS training necessary for the *Contractor* in order to carry out the works. First training will be on *Employer's* cost, if the *Contractor's* personnel failed the first attempt, the second attempt training will be on *Contractor's* cost.
- i) The *Employer* will provide any training deemed necessary by the *Service Manager* for the *Contractor* to perform the service. The *Contractor* shall be obliged to carry out the service for which the training was provided

## 2.11 Design and supply of Equipment

- a) Contractor to provide all tools and equipment necessary to perform the required service and tools / equipment to be in good and safe condition to work with.
- b) All equipment and tools need to be marked and a list off all tools with the identification number to be provided to the Service Manager when entering site.
- c) All lost equipment and tools to be declared to the Service Manager and full details of incident.
- d) In the case for a Modification the Modification process must be followed
- e) Contractor will also be responsible to supply a yearly SANAS calibration certificate for own multi meters
- f) All tools and equipment needed to execute the scope of work including Multi meter and megger must comply with Hazardous Locations requirements

## 2.12 Things provided at the end of the *service period* for the *Employer's* use

### 2.12.1 Equipment Information and other things

- All Reports / Documents to be compiled, filed, discussed, and handed over to the Employer on a weekly basis (the day in the week to be announced by Employer) and at the end of the service.
- On Completion of contract the Contractors safety file will be hand over to the Service Manager and will be saved for 40 Years after completion / termination of the contract
- Contractor is Responsible to ensure that his Letter of Good standing is valid at all times as stipulated in the construction regulations point 7 (C) (iv) and she specifications 2.5.2 (iv) and 3.10 Contractor will not be allowed on site if his letter of good standing is not valid
- As per clause 70.2 to provides other things as stated in the Service Information
- The Contractors Health and safety file is to be submitted for approval to the Employer's safety Officer before contract commencement and must be kept up to date at all times

### 2.12.2 Information and other things

- a) All reports / documents to be compiled, filed, discussed and handed over to the *Employer* on a weekly basis (the day in the week to be announced by *Employer*) and at the end of the service.
- b) The *Contractors* safety file will be handed over to the *Service Manager* and will be saved for 40 Years after completion / termination of the contract.

## 2.13 Management of work done by Task Order

- a) A Task Order or Formal Letter is the instruction to commence work.
- b) All work will be issued on a Task Order system. The Work Order, Purchase Requisition and Purchase Order will be created via the SAP PM system.
- c) No work shall commence until a Task order is issued, accepted and signed by both the *Employer* and *Contractor*
- d) Completion certificate to be issued after task order is completed and Assessment certificate to be completed

## 3. Health and safety, the environment and quality assurance

### 3.1 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in Annexure SHE Specification 14RISK SRM – 084 to this Service Information.

- a) All the *Employers* health and safety procedures and regulations to be adhered to by the *Contractor*
- b) A SHEQ file to be handed in at the SHEQ department for approval prior to work commencement and kept up to date for the duration of the contract

## **SHEQ Policy**

### **Eskom SHEQ Policy**

The *Employer* has made a commitment to conduct business with respect and care for people, the environment and assets and that no operating condition or urgency of service justifies exposing anyone to negative risks arising from Eskom's business.

Compliance with the Eskom SHEQ Policy and applicable regulations is the responsibility of every employee and *Contractor*.

### **Contractor SHEQ Policy**

All *Contractors* shall have an OHS policy signed by the CEO of the *Contractor* and prominently displayed where employees normally report for duty.

Signed copy of the OHS policy shall form part of the SHE file.

### **SHE Plans requirements**

- Principal *Contractors* shall develop a suitable and sufficiently documented site specific SHE plan, based on the scope of work and client SHEQ specification.
- The SHE plan must be pre-approved by the client for implementation. The principal *Contractor* / *Contractor* have the responsibility to send the SHE plan to the client for approval prior to commencement of work.
- The SHE plan must be applied from the commencement of and for the duration the construction work, which must be updated / reviewed as the work progresses/changes.

When a principal *Contractor* intends appointing *Contractor*, the principal *Contractor* shall ensure that the *Contractor* provides and demonstrate a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's SHEQ specifications and scope of work

- The *Contractor* must ensure that all personnel attend the *Employers* health and safety Induction Course prior to starting with the works.
- All *Employer's* health and safety requirements to be adhered to
- *Contractors* Health and Safety file to be handed in for approval, and kept up to date by the *Contractor*

### **Health and Safety Arrangements**

The *Contractor* ensures that all his personnel attend a Health and Safety Induction Course prior to contract starting date and annual re- induction. The Induction Course is presented by the *Employer's* Safety Risk Department at Tutuka Power Station. Arrangements are made with Safety Risk Management, by the *Contractor*.

The *Employer's* Safety Risk Manager visits and inspects the *Contractor's* workplace or site yard and the working areas to ensure that tools; machinery and Equipment comply with the minimum safety requirements.

The *Service Manager* may instruct the *Contractor* to stop work, where the *Contractor's* personnel fail to conform to safety standards or contravene health and safety regulations. Such stop-work order is not a



compensation event. The *Service Manager* may instruct the *Contractor* to discipline his employees and to submit a disciplinary action report to the *Service Manager*. The *Contractor* implements additional health and safety precautions where necessary.

The *Contractor* complies with the Occupational Health and Safety Act 85 of 1993, as well as *Employer's* procedure as stipulated below:

- a) SHEQ Policy 32-727
- b) Eskom Procurement and Supply Chain Management Procedure 32-1034
- c) SHE Requirements for the Eskom Commercial Process 32-726
- d) *Contractor* Health and Safety Requirements 32-136
- e) Integrated SHE Organization; Roles and Responsibilities and Statutory Appointments 32- 296
- f) Live-saving Rules 240-62196227
- g) Working at Heights 32-418
- h) *Contractor's* personnel will be required to work in confined spaces.
- i) Eskom Vehicle Safety Specifications 32-345
- j) Tutuka *Contractor* SHEQ Specifications 14RISK SRM - 084

The *Contractor* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who have received sufficient safety training to ensure that they can comply therewith.

The *Contractor* 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 *Contractor* shall appoint a person who will liaise with the *Employer's* Safety Officer responsible for the premises relevant to this contract.

Do safety audits at the *Contractor's* premises, its work-places and on its employees;

Refuse any employee, sub-*Contractor* or agent of the *Contractor* 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 qualifies in terms of the OHSACT;

Issue the *Contractor* with a work stop order or a compliance order should *Employer* become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures by the *Contractor* or any of its employees, sub-*Contractors* or agents.

The *Contractors* Health and safety file is to be submitted for approval to *Employer's* Safety Officer before contract commencement.

All work stoppages called by the *Employer* to be adhered to

### **First aid and fire fighting**

Adequate first aid and firefighting equipment to be provided by the *Employer*

All *Contractor* personnel must have First aid and firefighting training

*Contractor* to provide own Fire extinguishers for site

### **Fire Precautions**

Any tampering with the *Employer's* fire equipment is strictly forbidden.

All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards is kept free of obstruction, and are not used for work or storage at any time. Firefighting equipment must remain accessible at all times.

The *Contractor* takes the necessary action to safe guard the area to prevent injury and the spreading of the fire.

### **Security, fire protection and safety**

The *Contractor* shall be responsible for ensuring the security of the works, and of his plant, equipment and materials. To that end he shall make adequate provision for access control, lighting and watchman to the works where required.

### **Fire protection**

The provision of Eskom's standard NWS 1494 "Fire Prevention and Protection of *Contractor's* premises at New Works Sites" shall be applicable.

### **Safety and incident prevention**

The *Contractor* shall implement and maintain an active Site Safety and Accident Prevention Programme in accordance with the Tutuka SHEQ Specifications. The overriding regulations will however be the Occupational Health and Safety Act.

### **Reporting of accidents**

The *Employer* follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The *Contractor* is expected to fully co-operate to achieve this objective. The *Service Manager* must be informed immediately of any incidents. A written report to be submitted to the *Employer* within 24 Hours of incidents and any damage to property or equipment

**NOTE!** This report does not relieve the *Contractor* of his legal obligations to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

### **Occupational Health and Safety Act 85 Of 1993 – SECTION 37**

In accordance with Section 37 (2) of the Act, the *Contractor* is appointed by the *Employer* as mandatory to assume Health and Safety duties and responsibilities. The *Contractor* ensures compliance with all requirements of the Act and any instruction or notification that enhances those requirements.

The *Contractor* acknowledges that he is fully aware of all the requirements of the Occupational Health and Safety Act and undertakes to employ only staff who have been duly authorised in terms thereof and who receive sufficient safety training to ensure that they can comply therewith.

The *Contractor* undertakes not to do, and not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

**The *Contractor* appoints a person who liaises with the *Employer's* Safety Officer, responsible for the premises relevant to the Contract. The person appointed shall on request:**

- Supply the *Employer's* Safety Officer with copies of minutes of all Health and Safety meetings, whenever required.
- Supply the *Employer's* Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall notify the *Employer's* Safety Officer of any changes thereto.

The *Employer* may, at any stage during the duration of this contract:

- perform safety audits at the *Contractor's* premises, its work place and its employees;

- refuse any employee, *SubContractor* or agent of the *Contractor* access to its premises if such person is found to commit any unsafe act or any unsafe working practice or is found not to be duly authorised nor qualified in terms of the Act;
- Issue the *Contractor* with an instruction to stop work should the *Employer* become aware of any unsafe working procedure or condition or any non-compliance with the Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 85 of 1993 and all Regulations made hereunder as well as all the *Employer's* Safety and Operating Procedures. Any such instruction is not a compensation event. Furthermore, no amendments to the act or the Regulations or reasonable amendment to the *Employer's* Safety and Operating Procedures will entitle the *Contractor* to claim any additional costs or time incurred in complying therewith, from the *Employer*

### **Safety Regulations of the *Employer***

The *Contractor* conforms to the *Employer's* Plant Safety Regulations

The *Employer* makes available to the *Contractor*, on request, a copy of the latest revision of the Plant Safety Regulations.

## **3.2 Environmental constraints and management**

The *Contractor* shall comply with the environmental criteria and constraints stated in the following:-

All waste from the project must be disposed in a sound environmental manner in accordance with Tutuka Power Station Waste Management Procedure 14 Risk ENV-013. Oil spillages must be contained and cleaned as per Oil Spill Management procedure 15 ENPRENV-001. The project must conform to Eskom Environmental Legal and other Requirements procedure 14 Risk ENV-012 and the project must conform to Tutuka Power Station ISO14001 Standard with reference to Tutuka Power Station's Environmental Management System Manual 14 Risk ENV-010. All environmental incidents must be dealt with as per the Station's Incident Management, Corrective and Preventative Procedure 14 Risk PC-001 and all environmental incidents must be reported to the Environmental Department on site with Telephone Number 017-7495536.

## **3.3 Quality assurance requirements**

The *Contractor* shall be required to demonstrate by means of a Quality Plan that this organisation is so structured that all the requirements of the specification will be properly monitored and controlled. The Quality Plan and Control procedures are to be carried out in accordance with QM 58. The Quality Control document is to be submitted for approval to Tutuka within three (3) days after order placement by the *Contractor*.

No work may commence unless the Quality Control document has been approved in writing and a copy submitted to *the Service Manager*. *The Contractor*, in conjunction with Tutuka Engineering must sign off all Quality Control documents after completing all work on site. *The Contractor* to submit a copy of the final signed off document to *the Service Manager* within 1 week after Completion of each activity or task

- QCP and contract quality plan standards as per QM 58 to be adhered to
- The *Contractor* must provide Quality Control Plan documents for approval by *Employer's Service Manager* performing any activity.

## 4. Procurement

### 4.1 People

#### 4.1.1 Minimum requirements of people employed

- All relevant personnel names and titles must be specified to the service manager
- All new staff to be appointed in writing.
- All new staff to do induction training
- All new staff to be approved by Service Manager before entering the site or commencing work
- All new staff must hand in all qualifications and relevant documentation to the Service Manager
- When changing personnel a new access to work form to be completed by the Contractor
- Only required specified approved amount of personnel to be allowed on site, pre-arranged with Service Manager
- All Contractors personnel specified in this contract as per 2.3 to be always on site, unless on leave for max 10 working days, otherwise replacement of same skill required.
- Leave can be rejected by the Service Manager depending on Business needs.
- Contract Staff are not allowed to work on any other contract unless authorized in writing by Service Manager.
- All replacements of staff will be in the same discipline (eg. an artisan to be replaced with an artisan with proof of qualifications)
- Contractor's Technicians Must be authorized to take out permits LV for LV work and Supervisor to be authorized to take out permits HV for the HV fence and LV for LV work Within 6 months of start date of the contract or as soon as the Employer can arrange the Training.
- Do monthly inspections and report al defects to the supervisor

#### Minimum qualifications requirements of people employed by the Contractor are as follows:

- Contract supervisor must have at least grade 12/N3 in electrical/mechanical/chemical engineering and be certified as a level 3 vibration analyst, thermography level 2, oil analysis category level 1 and ultrasonic category level 1. Must have a minimum of 5 years supervisory skills.
- The level II analyst must have at least grade 12/N3 technical an, vibration analyst level 2, thermography certificate level 1 and oil analysis level 1.
- The level I analyst must have basic knowledge of vibration monitoring and a minimum 30 hour full time field exposure.

#### Procurement Requirements

#### PPPFA STRATEGY

Indicate the percentage (%) that is allocated to:

Price  
BBBEE Status  
Designated commodity (Yes/No)

Price	90%
BBBEE Status	10%
Designated commodity (Yes/No)	No

#### 4.1.3 Supplier Development, Localisation and Industrialisation (SDL&I)

##### Section 1: Specific Goals

A maximum of 10/20 points may be awarded to a tenderer for the specific goal specified for the tender. The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places. Subject to section 2(1)(f) of the Preferential Procurement Policy Framework Act, the contract must be awarded to the tenderer scoring the highest points.

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

**NB: The following documents are required to claim preference points,**

- Valid B-BBEE certificate issued by a SANAS accredited verification agency / sworn affidavit / CIPS affidavit
- Proof of ownership / shareholding (preferably CIPC documentation) inclusive of shareholding breakdown
- Certified ID copies of shareholder(s)
- Proof of Disability (where applicable)

**Tenderer failing to provide documentation for the allocation of preference points will not be disqualified, but'**

- May only score point out of 90/80 for price
- Scores 0 points out of 10/20 for specific goals

##### Section 2: Objective criteria

The inclusion of objective criteria is not mandatory but a condition for contract award. If the tenderer does not meet objective criteria; it may lead to the second-ranked tenderer being recommended for award.

##### 2.1 Designated Sectors

When applicable the following stipulated minimum threshold for Local Production and Content must be achieved in full by the tenderer

a) Is this Commodity or part of it a Designated Sector?

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please indicate below Designated Components

Commodity	Components	Local Content Threshold
N/A	N/A	N/A

**NOTE:** SBD 6.2 Declaration Form and Annex C (Local Content Declaration-Summary Schedule) are therefore **mandatory** and must be tender returnables if applicable.

## 2.2 CIDB Skills Development

### Continuation of Mandatory Requirements

a) Is there CIDB compulsory training?

If Yes, what is the % of the Construction Skills Development Goal % (CSDG)

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Not applicable	

If the answer above is Yes, it will then be mandatory for the supplier to match Eskom's targets

Criteria	Eskom Target	Tenderer Commitment
CSDG Percentage	N/A	
Description	N/A	

**NOTE:** Failure by the Contractor/Service Provider/Supplier to meet the CIDB CSDG mandatory % will render their tender non-responsive.

## Section 3: SDL&I Objectives in line with Reconstruction and Development Programme (RDP) Goals

Tenderers who complete and submit the objectives as required, but who do not meet Eskom's targets, will not be disqualified. SDL&I objectives do not form part of scoring but commitments will form part of contractual obligations

### 1. 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

## **2. 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

Local Procurement Content	Eskom target	Tenderer Proposal
	100%	

### 3. Skills Development

Skills Type	Eskom Target	Intake Level	Exit Level	Suppliers Proposal
Vibration Analyst	1	Matric	Level I Analyst	
Vibration Analyst	2	Matric	Level II Analyst	
Vibration Analyst	3	Level 1	Level III Analyst	
Total	6			

4. **Jobs if applicable.** 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 retained

### Section 3: SDL&I Penalty and Performance Security

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

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.

### Section 4: 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

## Section 5: Market Research

The following information demonstrates market analysis and assisted in arriving at the targets above.

### Current Suppliers Providing the Services

- None

### Potential Suppliers:

- Open Market

## Section 6: General Information on Validity of Sworn Affidavits

The following must be considered when it comes to validity of Affidavits;

**Tenderers submitting B-BBEE Sworn Affidavits must ensure that the affidavits meet the following key pointers to ensure their validity:**

- Name/s of deponent as they appear in the identity document and the identity number.
- Designation of the deponent as the **director**, **owner** or **member** must be indicated in order to know that person is duly authorised to depose of an affidavit. **(Mark the applicable option).**
- Name of enterprise as per enterprise registration documents issued by the CIPC, where applicable, and enterprise business address.
- Percentage of black ownership, black female ownership and designated group. In the case of specialised enterprises as per Statement 004, the percentage of black beneficiaries must be reflected. **(No blank spaces to be left).**
- Indicate total revenue for the year under review and whether it is based on **audited financial statements** or **management account**. **(Mark the applicable option).**
- Financial year end as per the **enterprise's registration documents**, which was used to determine the total revenue. (Financial year end to be stipulated by **day/month/year**).
- B-BBEE Status level. An enterprise can only have one status level. **(Tick applicable level)**
- Empowering supplier status must be indicated. For QSEs, the deponent must select the basis for the empowering supplier status.
- Date deponent signed and date of Commissioner of Oath must be the same. **(The sworn affidavit must be signed in the presence of the Commissioner of Oath. Furthermore the Commissioner must also sign and stamp)**
- Commissioner of Oath cannot be an employee or ex officio of the enterprise because, a person cannot by law, commission a sworn affidavit in which they have an interest.

## 4.2 Subcontracting

### 4.2.1 Preferred subContractors

- Sub-Contracting will only be allowed with permission from the *Service Manager*

### 4.2.2 Subcontract documentation, and assessment of subcontract tenders

- N/A

#### 4.2.3 Limitations on subcontracting

- a) 25% of the Scope can be subcontracted **or** As per SDL&I requirements

#### 4.2.4 Attendance on subContractors

- b) N/A

### 4.3 Plant and Materials

#### 4.3.1 Specifications

- a) All plant spares and materials to be inspected (Quality checked) before installing at plant.
- b) The *Employer* will supply all spares and materials.
- c) The *Contractor* is not allowed to use any materials or spares for private usage or on other Sites.
- d) The *Contractor* must transport material as requested.
- e) Requests to be in writing the day before the material will be needed.
- f) The *Contractor* to transport tools and materials from and to the work site.
- g) Work and QC do be done according to *Employer's* regulations and procedures
- h) The *Contractor* will be responsible for Inspection and Maintenance on equipment
- i) The *Contractor* will be responsible for the safeguarding, care and security of all items whilst in the *Contractors* custody and control, until Completion of the whole of the works.
- j) *Contractor* must be "trained and be authorised" with the necessary PPE, equipment, tools, skills and skilled to handle any equipment, spares, tools and materials related to the scope
- k) In case of loss or damage to *Employer's* tools and equipment by the *Contractor*, the *Contractor* must in their own expense replace the item/s.

#### 4.3.2 Correction of defects

- a) All Correction within 90 days on the same plant will be seen as re-work
- b) Rework of work will be seen as rework within a time from 0 to 90 days. Rework will be on the *Contractor* account.
- c) All work to be done must be done under a permit to work to work or lock out procedure as required by PSR. Some plants are trip risks and can only be worked on during outages or units shut downs.
- d) All defected spares to be replaced with the permission of the *Service Manager* / Supervisor.
- e) As per inspection check list provided by the *Employer* (GGP 1045 pg. 33-35; GGP 1046 pg. 33-35)

#### 4.3.3 Contractor's procurement of Plant and Materials

- a) Purchasing of spares or materials will go through the *Employer's* procurement process

#### 4.3.4 Tests and inspections before delivery

- a) All plant spares and materials to be inspected (Quality checked) before installing at plant.
- b) Hold points must be attended and witness all intervention points as per approved QCP as per activity.

#### 4.3.5 Plant & Materials provided "free issue" by the *Employer*

- a) All spares removed and returned to Tutuka premises must be declared at the main entrance where the removal permit for the spares must be shown to the Protective Services personnel.

#### 4.3.6 Cataloguing requirements

- N/A

## 5 Working on the Affected Property

### 5.1 Employer's site entry and security control, permits, and site regulations

- a) Lifesaving rules must be adhered to at all times.
- b) Access is limited and controlled by Plant Safety Regulations requirements.
- c) No employee will be allowed to access the plant or to work without access permit issued.
- d) All personnel to work on the plant must be registered on the Worker's Register by the Responsible Person.
- e) All personnel must attend induction before working on site and they must obtain gate permits via the *Service Manager*.
- f) Unauthorised access to site is prohibited.
- g) The personnel are expected to be always at their working site area.
- h) No recruitment on site or at the main access gates.
- i) All activities to comply with the OHSACT regulations.
- j) All activities on plant must be preceded by a plant risk assessment – Risk assessment as per the *Employer's* standard, to be current at all times (Live Document)
- k) Each person to always have an Identification card

### 5.2 People restrictions, hours of work, conduct and records

- a) Normal working hours is *Employer's* working hours
 

Monday to Thursday	07:00 - 16:15
Fridays	07:00 - 12:00

 40 hour Work week
- b) Overtime on a as and when required basis, but must be approved by the *Service Manager*
- c) Daily time sheet must be kept up to date of normal time and overtime worked at all times. The *Employer's Contractors* time sheets to be used
- d) Call outs might be required on an as and when required basis depending on the plant Status (Breakdowns)
- e) The *Contractor* must be available for any plant break downs during after hours, week-ends and public holidays. The *Contractor* must be on site within 1 hour after been called out.
- f) All overtime worked must comply with *Employer's* overtime policy
- g) All planned overtime a plan must be submitted by the *Contractor* and a request for planned overtime to be handed in and approved by the *Service Manager*

### 5.3 Health and safety facilities on the Affected Property

- a) Proto-team on each shift
- b) Medical Station and relevant staff on Site.
- c) Each workshop has a first aid box available.
- d) Yearly induction for all personnel and re-Induction to be done annually throughout contract duration
- e) In an emergency the contract supervisor and *Service Manager* must notified immediately

# Facilities as designated by the *Employer*

- Toilets

#### First aid centre

The *Contractor* provides a first aid service to his employees and *SubContractors*. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer's* medical centre and facilities are available.

Outside the *Employer's* office hours, the *Employer's* first aid *Services* are only available for serious injuries and life threatening situations.

The *Employer* is entitled, however, to recover the costs from the *Contractor* for the use of the above *Employer's* facilities

## 5.4 Environmental controls, fauna & flora

### Environmental management

Proper care of the natural environment is important to prevent nuisance and environmental degradation.

All *Contractors* shall comply with Eskom environmental management procedures and Environmental legislation

Environmental incidents shall be reported to the Eskom Environmental Department as per incident management requirements.

The following Environmental procedures must be adhered to;

- 14RISK ENV-0557 Oil spill clean-up and Rehabilitation
- 14RISK ENV-013 Waste Management

### Waste Management

Waste segregation is important to facilitate recycling of waste. Ensure waste is disposed of in the correct colour bin.

- The *Employer's* periodically collects waste from the bins for disposal in the correct manner.

No waste should be burned or buried on site.

Where the *Employer* and the *Contractor* have agreed that the *Contractor* is responsible for the disposal of its waste, the *Contractor* shall safely dispose of such waste and keep disposal certificates on file.

### Types and colours of bins used on site:

- Yellow bin for domestic waste
- Orange bin for hazardous waste
- Maroon bin for scrap
- Green box for cartridges
- Blue box for recyclable paper

### Hazardous Substances

It is required in terms of the General Administrative Regulation (Regulation 7) of the Act that any manufacturer, importer, seller or supplier of hazardous chemical substances shall supply the receiver, free of charge with sufficient information for the user, to enable the user to introduce the necessary measures as regards the protection of the health and safety of persons. It is therefore the responsibility of the supplier (dealing directly with the *Employer*) to supply the information. If information is not available for whatever reason, the supplier must indicate and give reasons to the *Employer*.

### Radiation protection

The *Contractor* conforms to the *Employer's* procedure OMOP 2049 and OMOP 2051 when performing any industrial radiography.

### Handling of waste produced by the *Contractor*

All waste introduced to and/or produced on the *Employer's* premises, by the *Contractor*, for this contract, must be handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous

Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref.:BN0621-16296-5.

The *Contractor* is responsible to appoint a waste coordinator to ensure that all waste produced is handled according to the applicable legislation.

The *Contractor* is required to ensure that all goods, *Services* or work supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the *Employer's* site, the goods, *Services* or work supplied also conforms to the *Employer's* environmental specifications.

### **Waste from the cleaning and maintenance of equipment**

The *Contractor* is responsible to contain all waste due to cleaning and maintenance of equipment and disposes of as described below.

### **Stockpiling of waste**

Waste is removed promptly to the designated deposit areas. No stockpiling is permitted.

### **Hazardous waste**

Waste declared as hazardous substances in terms of the Hazardous Substances Act no 15 of 1973 is the responsibility of the *Contractor* to ensure safe removal from the property to a registered Class 1 site

### **Pest Control**

Only approved herbicides with a low environmental risk shall be used for pest control.

- Only registered pest controllers may apply herbicides on a commercial basis.

Application of herbicides shall be in accordance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 194.

### **Water Conservation**

Incidents related to water pollution must be reported to the Eskom environmental department within 24 hours.

Report/fix leaking taps and pipes to save water.

- Use water sparingly.

Chemical substances shall not be disposed of in waste water or storm water drains.

### **Air Pollution**

Dust suppression measures must be in place to reduce airborne dust.

Noxious and offensive odours arising from work activities shall be adequately controlled.

### **Ground Pollution**

Measures to prevent or control ground contamination shall be put in place e.g. drip trays, bund walls. Spill containment, clean-up and ground rehabilitation shall be done as per Tutuka procedures

## 5.5 Cooperating with and obtaining acceptance of others

### Interface with Others

It is likely that other *Contractors*, *Employer's employees* and Other Contractors will be working in the same area. Others will however from time to time require limited access to the same area in order to execute maintenance activities and the *Contractor* is to be accommodating in such instances.

### Planning

Programmes are submitted in hard and electronic copy.

### Monthly progress report

A monthly progress report will be submitted to the *Service Manager*

### Completion

This section specifies what the *Contractor* has to do for Completion.

### Requirements for Completion

Completion is when the *Contractor* has done all the work, which the Service Information states he is to do by the Completion Date and has corrected notified Defects, which would have prevented the *Employer* from using the works.

The site is handed back to the *Employer* in a condition acceptable to the *Service Manager*.

## 5.6 Records of *Contractor's* Equipment

- *Contractor's* equipment (cell phones with cameras, computers, cameras, tools, etc.) must be declared and signed in at security.
- All test equipment must be calibrated and tested regularly and certificates must be handed in to the *Service Manager* for record keeping.
- *Contractor* to hand in a list of all tools to be used on site and to report and indicate whenever new tools are added to the list to the *Service Manager*
- All equipment and tools needs to be marked and a list off all tools with the identification number to be provided to the *Service Manager* when entering site.

### Electrical & Instrumentation equipment and appliances

Any electrical/instrumentation equipment or appliances used by the *Contractor* conforms to the applicable South African Safety Standards and is maintained in safe and proper working condition. The *Service Manager* has the right to stop the *Contractor's* use of any electrical/instrumentation equipment or appliance that in the *Service Manager's* opinion does not conform to the foregoing. The *Contractor* only employs skilled persons, certified in terms of the relevant acts.

## 5.7 Equipment provided by the *Employer*

- All rigging equipment over five tons to be provided by the *Employer* and to be used under Supervision.
- All other equipment required not specified in this contract under Supervision

## 5.8 Site Services and facilities

### 5.8.1 Provided by the *Employer*

The *Employer* may allow the *Contractor*, for the execution of the works, the reasonable use of its workshop, cranes, tools and equipment, provided that the *Employer's* own work and business are not interfered with in any manner by such use. The *Contractor* shall leave all workshops, cranes, tools and equipment in as good a condition as he found them, fair wear and tear excepted, and shall be liable for any damages by the *Employer* as a result of any act of negligence by the *Contractor*, his employees or sub-*Contractor* while using such workshop, cranes, tools and equipment.

The *Contractor* is responsible for the repair, replacement or correction as necessary of all pieces of tools and equipment supplied by the *Employer* which are damaged and/or lost whilst in the *Contractor's* custody and control.

### Supply of electricity

The *Employer* supplies 220 & 380 V AC power supply at existing points for the purpose of the works only. All installations or equipment complies with all relevant safety regulations and requirements. *Contractor* to supply own 220 or 380 VAC extensions.

### Water

The *Employer* supplies potable water for the purpose of the works, at existing points and in reasonable quantities. Uninterrupted supply is not guaranteed and is not grounds for compensation events.

### Accommodation of the *Contractor's* employees

The *Contractor* makes his own arrangements for accommodation and meals.

### Telecommunications

The *Contractor* provides his own communication system and the cost thereof.  
All private telephone calls / Internet usage will on the account of *Contractor*.

Should the *Contractor* wish to use radio communication equipment on site, he will make his own arrangements with the relevant authorities. In this case though, he is required to liaise with the Head of Security at the Station to ensure that there is no interference with existing channels or equipment

### Facilities availability

*Employer* will provide facilities such as toilet and portable water.

For the purpose of expediting the works, the *Employer* may make facilities and *Services* available to the *Contractor* as provided at no cost to the *Contractor*. The *Contractor* will not receive any reimbursement or make any change to the beneficial use of the facilities or *Services*.

### 5.8.2 Provided by the *Contractor*

- a) *Contractor* to provide and ensure safe transportation *Services* for all his *Contractors* and it must comply with 32-93 and 33-345 procedures.



- b) *Contractor* to provide own staff refreshments, Coffee, sugar, milk, tea etc.
- c) All computers and printers accessories needed will be provided by the service manager.
- d) The *Contractor* will be responsible for the cost of all private phone calls, faxes and internet usage.
- e) The *Contractor* to provide accommodation and meals for his / her employees and costs for this to be included in the contract price.
- f) All PPE to be provided by *Contractor* at own costs including Arc flash PPE and acid redounded PPE and must be SABS approved..
- g) Provide SANS approved Safety harnesses as per *Employer's* Safety Requirements.
- h) *Contractor* will provide a method statement to explain how the scope of work will be executed and this must form part of the returnable.
- i) Supply a letter undertaking that the *Contractor* does have the correct tools and equipment to perform activities, *Contractor* also to provide a list of tools and equipment that is registered on the company's register to execute contract's scope.
- j) QCP's and Certified Letters to be provided as a proof of previous similar activities done, with references of previous activities done.
- k) The *Contractor* to provide a full detailed Technical Method Statement with regard to scope of work on
  - how ash disposal system, coarse ash conveyors, ash conveyors, conditioner conveyor, conveyor system, ash systems etc will be repaired or maintained.
  - Supply a letter of undertaking that the *Contractor* does have the correct tools and equipment to perform the activity
  - *Contractor* also to provide a list of tools and equipment that is registered on the Company's register.
- l) *Contractor* will provide all safety apparel, safety equipment and cleaning materials to comply with the contraction regulations.
- m) *Contractor* to supply own 220 VAC extensions at the *Contractors* own cost.
- n) *Contractor* to provide own lead lights
- o) Certified copies of ID and Qualifications to be provided by the *Contractor* on contract award
- p) The *Contractor's* employees will be interviewed by the *Employer*, before the start of the contract to verify the qualifications.
- q) Company Tool list of all the equipment to be provided to the *Service Manager*.

### Personal Protective Equipment

The *Contractor* supplies, maintains and ensures that his personnel at all times wear personal protective equipment as required per site.

### Housekeeping

The *Contractor's* Equipment does not impair the operation of the plant or access to the plant.  
The *Contractor* will comply with good Housekeeping standards whilst working on the *Employers* site.

#### Access permits

All applicable *Contractor* personnel shall be issued with access and vehicle permits (*Contractor* Permit) which will contain the following information:

- Name
- ID Number
- Company
- Validity date

All *Contractor* permits must be submitted to Protective Services when the workers leave the Site after Completion of the works.

The *Contractor* applies with Tutuka Power Station Protective Services for the issuing of permits.



The *Contractor* submits his application at least 24 hours prior to entering the Security area. This application form must be delivered to Protective *Services*, or can be faxed to (017) 612 6312.

The form contains the following information:

- Employee Name.
- Employee ID Number.
- *Employer* Safety Co-ordinators signature.
- *Employer's Service Manager's* signature.
- Copy of the first page of the ID book of every employee of the *Contractor*, photocopied to reduce the size to 65%.

The form is appended to the *Contractor's* Safety Manual, referred to in Section 2.3.2 (b).

The *Contractor's* visitors and personnel shall conform to the security arrangements in force at the Site at all times.

The Chief of Protective *Services* may, with valid cause, remove any of the *Contractor's* personnel from Site, either temporarily or permanently. He may deny access to the Site to any person whom, in the opinion of the said Chief of Protective *Services*, constitutes a security risk.

No unauthorized vehicles will be allowed on Site. Contract vehicle application should be directed to the *Service Manager*.

The *Contractor* will be limited to the working areas associated with the works. The *Contractor* is forbidden to enter any other areas, and must ensure that his employees abide by these regulations.

Parking inside the Power Station is allowed. The parking application must be addressed to the protective *Services*. All *Contractors* will supply protective *Services* with their vehicles registration numbers.

No recruiting of casual labour may be done on the *Employer's* premises, including the area outside the power station security gate.

The *Contractor* obtains the access procedures, from *the Service Manager*, which may change depending on the prevailing security situation.

### **Standby personnel**

The *Contractor* supplies the *Service Manager* with a standby roster of standby personnel.

### **Temporary cabling**

The *Contractor* will be provided with all temporary wiring and cabling to lead power from the point of supply to the various points where it is required. The *Contractor* maintains and removes it on Completion.

## **5.9 Control of noise, dust, water and waste**

- a) All necessary and relevant PPE for noise, dust and waste must be used at all times when entering or working on plant and in workshop.
- b) Work Permit Risk Assessment forms must be completed before commencing with any task.
- c) All relevant procedures to be used at all times.

## 5.10 Hook ups to existing works

### 5.10.1 Constraints on how the *Contractor* provides the service

- a) The *Employer* reserves the right to have any of the *Contractor's* personnel removed off site without cancelling the contract if, in the *Employer's* opinion, it is warranted.
- b) The *Employer* reserves the right to request disciplinary / corrective action if, and when, required.
- c) The main *Contractor* is accountable for the management of their sub-*Contractors* and suppliers and to ensure that the applicable legal and the *Employer's* requirements (applicable during contract execution) are complied with by the sub-*Contractors* and suppliers (all tiers). If there are non-conformances / non-compliance to applicable legal and the *Employer's* requirements identified, then the Main Service Provider/Principle *Contractor* will be penalised.
- d) The *Contractor* shall operate under the direction and instructions of the *Employer's* Manager or such person/people as may be appointed by him if not in conflict with the Occupational Health and Safety Act and the Generation Plant and Safety Regulations.
- e) *The Contractor shall maintain a high standard of workmanship expected by the Employer and shall comply with any quality assurance and quality procedures implemented by the Employer.*
- f) The *Employer* reserves the right to have any of the *Contractor's* personnel removed off site without any compensation to the *Contractor* in the event of the *Contractor's* personnel being in contravention with the OHS Act or any of the *Employers* rules , regulations and procedures
- g) The *Employer* reserves the right to terminate the contract, once 3 non-conformances / PIR are raised against the *Contractor*
- h) The *Employer* reserves the right to request disciplinary/corrective action if, and when, required.
- i) The *Contractor* must submit Curriculum Vitae's of its entire staff prior to work commencing on site.
- j) The *Contractor* must submit certified copies of qualifications and or certificates of its entire staff prior to work commencing on site.
- k) All *Contractor* supervisors must be authorised in Plant Safety Regulations as per legislative requirements and the period within which this requirement must be fully met, will be finalised and confirmed within six months on contract award.
- l) The *Contractor* will be responsible for the full payment of the legislative training costs for every employee at the *Contractor's* cost, in the event that the employees have to redo the training due to failing at the first attempt as well as the subsequent attempts that follows until the employee is authorised.
- m) All unknown / known services will be brought to the attention of the *Contractor* by *Service Manager*. Should the *Contractor* encounter any other services in the work area, he will immediately bring them to the attention of the *Service Manager* who will issue instructions as to what actions are to be taken.
- n) The *Employer* carries no responsibility for unforeseen delays unless such a delay is negotiated within 24 hours of the occurrence and written agreement is submitted to the *Employer*
- o) Care must be taken to prevent damage to any surroundings such as the plant, roads, environment and equipment in and around existing buildings.
- p) The *Contractor* and his employees will be required to conduct themselves at all times in proper and orderly manner while on the *Employer's* premises.
- q) The *Contractor* and his employees may only smoke in the allowed / designated areas.
- r) The *Employer* will take immediate steps to institute criminal investigations in the event of any suspected criminal acts e.g. theft etc.

### 5.10.2 Qualifications (Note – the below mentioned will change from time to time based on the skills required per contract)

**Minimum qualifications requirements of people employed by the *Contractor* are as follows:**

#### **Skills**

Required competences and qualifications are stipulated in the Vibration based condition monitoring of rotating auxiliary plant machinery (GST 36 -1095)

**Rule**

A condition monitoring analyst may not conduct work above his/her education and experience qualification. E.g., A level/category 1 vibration analyst may take vibration measurements, but not conduct diagnosis and prognosis for delivery to Eskom.

**Skills for vibration**

The vibration analysis must be led by at least a level 3 analyst and k must take responsibility to develop a monitoring program, routine and measurement procedures for each machine and also verifying the quality of the data.

A **level 2** vibration analyst may conduct diagnosis, prognosis and recommend corrective actions.

A **level 1** vibration analyst may only collect data.

## 5.11 Tests and inspections

### 5.11.1 Description of tests and inspections

- Quality Control check sheets to be completed and signed off by *Contractor* and *Employer*
- Do inspections as per Scheduled Work Order and report all defects to the *Employer*.
- Hold points must be attended and witness all intervention points as per approved QCP as per activity.

### 5.11.2 Materials facilities and samples for tests and inspections

- QC check sheets

### 5.11.3 Warranty on Load Tests

- For all lifting machinery in possession by the Contractor, warranty on load tests to be submitted to the Service Manager by the Contractor for record keeping.

## 6 List of Drawings

### 6.1 Drawings issued by the *Employer*

- All relevant drawings will be available in workshop or at the drawing office. *Contractor* to immediately advise the *Employer* of suspected deviations and updates required on drawings.

## 7 Low Service Damages

X17 LOW SERVICE EVEL TABLE			
ITEM	DESRICPTION OF TASK	Measurement	DAMAGES TO BE IMPLEMENTED
Arrival late and Leaving site early	Arriving late for work after 7am and leaving site before 16H15 without permission from <i>Service Manager</i> in writing	Per Individual per Incident	1% of monthly fixed cost per relevant Individual rates
Absent without official leave	Abdent from work without authorisation from the service manager	Per individual per Incident	1% of monthly fixed cost of RP rates
Work not completed	Daily work incomplete as per instruction / plan, without reporting delays or concerns on this regard	Per Day – Maximum after 2 incidents per month	0,5% of monthly fixed price (For every two incidents per month)
SHEQ violation	Violation from the same individual	Violation from the same individual	First offence Disciplinary action; Second offence within same financial year (01 April – 31 March) to be dismissal (and replacement of skill by <i>Contractor</i> ).

## 8 Annexure C: Key Performance Indicators

Key Performance indicator Condition monitoring)

### 8.1 X20 - Key Performance Indicators (only a sample below)

	KPA	Objective	Weight	Base	Target	Ceiling	YTD		YE	
							A	S	A	S
1	Repair Times on Priority 1				24 hours					

	<b>Priority 2</b>					<b>72 hours</b>					
	<b>Priority 3</b>					<b>Completed within 5 weeks</b>					
2	<b>Standby response time</b>										
						<b>1 hour</b>					
3	<b>Scheduled Compliance</b>					<b>98%</b>					
4	<b>PM Compliance</b>					<b>100%</b>					
5	<b>Statutory work</b>					<b>No violation</b>					
6	<b>Priority 1 work order not closed within 24 hrs</b>					<b>Less than 1 outstanding</b>					
7	<b>Priority 2 work order not closed within 24hours</b>					<b>Less than 2 outstanding</b>					
8	<b>Safety Defect</b>					<b>To be attended within 24hrs</b>					