



## NEC3 Term Service Contract (TSC3)

<b>Between</b>	<b>ESKOM HOLDINGS SOC Ltd (Reg No. 2002/015527/30)</b>	
<b>and</b>		
<b>for</b>	<b>Service and Maintenance of Boiler Emissions Gas Analysers for Both South and North Stack at Arnot Power Station for a Period of 4 Years</b>	
<b>Contents:</b>		<b>No of pages</b>
<b>Part C1</b>	<b>Agreements &amp; Contract Data</b>	<b>15</b>
<b>Part C2</b>	<b>Pricing Data</b>	<b>06</b>
<b>Part C3</b>	<b>Scope of Work</b>	<b>17</b>
<b>CONTRACT No.</b>	<b>[Insert at award stage]</b>	

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

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

<b>Contents:</b>		<b>No of pages</b>
<b>C1.1</b>	<b>Form of Offer and Acceptance</b>  [to be inserted from Returnable Documents at award stage]	<b>[•]</b>
<b>C1.2a</b>	<b>Contract Data provided by the <i>Employer</i></b>	<b>[•]</b>
<b>C1.2b</b>	<b>Contract Data provided by the <i>Contractor</i></b>  [to be inserted from Returnable Documents at award stage]	<b>[•]</b>
<b>C1.3</b>	<b>Proforma Guarantees</b>	<b>[•]</b>

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 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:

#### **Service and Maintenance of Boiler Emissions Gas Analysers for Both South and North Stack at Arnot Power Station for a Period of 4 Years**

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			
<b>For the tenderer:</b>			
Name & signature of witness	(Insert name and address of organisation)	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*.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 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	General Manager - Arnot Power Station		
<b>for the Employer</b>	Eskom Holdings Soc Ltd Arnot Power Station Private Bag X2 RIETKUIL 1097		
Name & signature of witness	(Insert name and address of organisation)	Date	

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

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

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

Note:

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

No.	Subject	Details
1	<b>Not applicable</b>	<b>Not applicable</b>

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.

	<b>For the tenderer:</b>	<b>For the <i>Employer</i></b>
Signature		
Name		
Capacity		General Manager - Arnot Power Station
On behalf of	<i>(Insert name and address of organisation)</i>	Eskom Holdings Soc Ltd Arnot Power Station Private Bag X2 RIETKUIL 1097
Name & signature of witness		
Date		

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 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>X17: Low service damages</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>1</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>0118008111</b>
	Fax No.	<b>Not Applicable</b>
10.1	The <i>Service Manager</i> is (name):	<b>TBA</b>
	Address	<b>Eskom Holdings Soc Ltd Arnot Power Station Private Bag X2 RIETKUIL</b>

<sup>1</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 [www.ecs.co.za](http://www.ecs.co.za)

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

		<b>1097</b>
	Tel	<b>TBA</b>
	Fax	<b>Not Applicable</b>
	e-mail	<b>TBA</b>
11.2(2)	The Affected Property is	<b>Arnot Power Station</b>
11.2(13)	The <i>service</i> is	<b>Maintenance of boiler emissions gas analysers and the provision of spares "as and when" required basis for both South and North stack at Arnot Power Station for a period of 4 years</b>
11.2(14)	The following matters will be included in the Risk Register	<b>1. Contractor not adhering to pre-set quality standards.</b> <b>2. People working without proper PPE and utilisation of wrong tool and equipment</b> <b>3. All matters discussed during Risk reduction meetings</b> <b>4. All matters notified on Early warnings</b>
11.2(15)	The Service Information is in	<b>Part 3: Scope of Work and all documents and drawings to which it makes reference.</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>(2) Two weeks</b>
<b>2</b>	<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 <i>Contractor</i> submits a first plan for acceptance within	<b>(2) Two weeks of the Contract Date</b>
<b>3</b>	<b>Time</b>	
30.1	The <i>starting date</i> is	<b>TBA</b>
30.1	The <i>service period</i> is	<b>4 Years (48 Months)</b>
<b>4</b>	<b>Testing and defects</b>	<b>If a test or inspection shows that any work has a defect, the Service provider corrects the defect, and the test or inspection is repeated.</b>
40.1	Notifying and correction of defects	<b>The Contractor corrects a Defect whether or not the Service Manager notifies him/her of it.</b>
40.2	Defects correction period is	<b>Emergency repairs within 72 hrs and the works to be carried out of 24 hrs basis</b>
<b>5</b>	<b>Payment</b>	
50.1	The <i>assessment interval</i> is	<b>between the 25th day of each successive month.</b>

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

51.1	The <i>currency of this contract</i> is the	<b>ZAR (South African Rand)</b>
51.2	The period within which payments are made is	<b>30 days after the receipt of correct and undisputed tax invoice.</b> <b>ATTENTION:</b> Eskom's standard policy on payment term for all contracts valued above R50 000 0000 (Fifty Million Rand), including in VAT, is 60 days. Bidders are requested to bear this payment term in mind when submitting bids and concluding contracts.
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.</b>
6	<b>Compensation events</b>	<b>All Compensation Events are to be managed as per core clause 6 of the NEC3 TSC</b>
7	<b>Use of Equipment Plant and Materials</b>	<b>To be managed ss per core clause 7 of the NEC3 TSC</b>
8	<b>Risks and insurance</b>	
80.1	These are additional <i>Employer's</i> risks	<b>1. Natural disaster 2. Industrial action 3. Community Unrest</b>
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	<b>The <i>Employer</i> provides the insurances stated in the Insurance Table B</b>
83.1	The <i>Contractor</i> will be liable for the applicable deductible if any	<b>The <i>Contractor</i> provides the insurances stated in the Insurance Table A</b>
9	<b>Termination</b>	<b>To be managed as per core clause 9 of the NEC3 TSC</b>
10	<b>Data for main Option clause</b>	
A	<b>Priced contract with price list</b>	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the service at intervals no longer than	<b>Monthly (30 days) or as stated on the Task Order.</b>
11	<b>Data for Option W1</b>	
W1.1	The <i>Adjudicator</i>	<b>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).</b>
	Address	<b>SAICE House, Thornhill Office Park, Bekker</b>

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

		<b>Road, Vorna Valley Midrand, 1685, South Africa</b>		
	Tel No.	<b>(011) 805-5947</b>		
	Fax No.	<b>Not Applicable</b>		
	e-mail	<b>civilinfo@saice.org.za</b>		
W1.2(3)	The <i>Adjudicator nominating body</i> is:	<b>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.</b>		
W1.4(2)	The <i>tribunal</i> is:	<b>Arbitration</b>		
W1.4(5)	The <i>arbitration procedure</i> is	<b>The latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.</b>		
	The place where arbitration is to be held is	<b>South Africa</b>		
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	<b>The Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.</b>		
<b>12</b>	<b>Data for secondary Option clauses</b>			
<b>X1</b>	<b>Price adjustment for inflation (Proposed)</b>			
X1.1	The <i>base date</i> for indices is			
	The proportions used to calculate the Price Adjustment Factor are:	<b>Proportion</b>	<b>linked to index for</b>	<b>Index prepared by</b>
		<b>15%</b>	<b>Fixed</b>	<b>Fixed Portion</b>
		<b>30%</b>	<b>Labour</b>	<b>SEIFSA Table - G1 Electrical Engineering</b>
		<b>38%</b>	<b>Material</b>	<b>SEIFSA Table - R (1-A) Commodities Natural gases</b>
		<b>15%</b>	<b>Transport</b>	<b>SEIFSA Table- L2 (B)road freight costs</b>
		<b>2%</b>	<b>CPI</b>	<b>CPI Table- D4</b>
		<b>100%</b>		
<b>X2</b>	<b>Changes in the law</b>	<b>Is a compensation event if it occurs after the Contract Date</b>		

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

<b>X17</b>	<b>Low service damages</b>	
X17.1	The <i>service level table</i> is in	<b>As per task order</b>
<b>X18</b>	<b>Limitation of Liability</b>	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	<b>R0.00 (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 described in the "Format TSC3" Insurance policy available on</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 in the <i>Employer's</i> assets and works/maintenance policies available on</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	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <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>Six (6) months after the end of the service period.</b>
<b>X19</b>	<b>Task Order</b>	
X19.3	Delay Damages are:	<b>Five percent (5%) of the Task Order Value per day from the day of delayed completion until the actual completion of the services, to be capped at the maximum of Ten percent (10%) of the Total Task Order Values</b>

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	<b>Seven (7) days of receiving the Task Order</b>
<b>Z</b>	<b>The additional conditions of contract are</b>	<b>Z1 to Z14 always apply.</b>
<b>Z1</b>	<b>Cession delegation and assignment</b>	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> 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 because of the restructuring of the Electricity Supply Industry.	
<b>Z2</b>	<b>Joint ventures</b>	
Z2.1	If the <i>Contractor</i> 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 <i>Employer</i> for the performance of this contract.	
Z2.2	Unless already notified to the <i>Employer</i> , the persons or organisations notify the <i>Service Manager</i> within two weeks of the Contract Date of the key person who has the authority to bind the <i>Contractor</i> on their behalf.	
Z2.3	The <i>Contractor</i> does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the <i>Employer</i> having been given to the <i>Contractor</i> in writing.	
<b>Z3</b>	<b>Change of Broad Based Black Economic Empowerment (B-BBEE) status</b>	
Z3.1	Where a change in the <i>Contractor's</i> legal status, ownership or any other change to his business composition or business dealings results in a change to the <i>Contractor's</i> B-BBEE status, the <i>Contractor</i> notifies the <i>Employer</i> within seven days of the change.	
Z3.2	The <i>Contractor</i> is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the <i>Service Manager</i> within thirty days of the notification or as otherwise instructed by the <i>Service Manager</i> .	
Z3.3	Where, as a result, the <i>Contractor's</i> B-BBEE status has decreased since the Contract Date the <i>Employer</i> may either re-negotiate this contract or alternatively, terminate the <i>Contractor's</i> obligation to Provide the Service.	
Z3.4	Failure by the <i>Contractor</i> to notify the <i>Employer</i> of a change in its B-BBEE status may constitute a reason for termination. If the <i>Employer</i> 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.	
<b>Z4</b>	<b>Confidentiality</b>	
Z4.1	The <i>Contractor</i> 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 <i>Contractor</i> , enters the public domain or to information which was already in the possession of the <i>Contractor</i> at the time of disclosure (evidenced by written records in existence at that time). Should the <i>Contractor</i>	

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

	disclose information to Others in terms of clause 25.1, the <i>Contractor</i> ensures that the provisions of this clause are complied with by the recipient.
Z4.2	If the <i>Contractor</i> is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the <i>Service Manager</i> .
Z4.3	If the <i>Contractor</i> is, at any time, required by law to disclose any such information which is required to be kept confidential, the <i>Contractor</i> , to the extent permitted by law prior to disclosure, notifies the <i>Employer</i> so that an appropriate protection order and/or any other action can be taken, if possible, prior to any disclosure. If such protective order is not, or cannot, be obtained, then the <i>Contractor</i> 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, while Providing the Service and after the end of the <i>service period</i> , requires the prior written consent of the <i>Service Manager</i> . All rights in and to all such images vests exclusively in the <i>Employer</i> .
Z4.5	The <i>Contractor</i> ensures that all his subcontractors abide by the undertakings in this clause.
<b>Z5</b>	<b>Waiver and estoppel: Add to core clause 12.3:</b>
Z5.1	Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the <i>Service Manager</i> or the <i>Adjudicator</i> 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.
<b>Z6</b>	<b>Health, safety and the environment: Add to core clause 27.4</b>
Z6.1	<p>The <i>Contractor</i> undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the <i>service</i>. Without limitation the <i>Contractor</i>:</p> <ul style="list-style-type: none"> <li>• accepts that the <i>Employer</i> may appoint him as the “Principal Contractor” (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health &amp; Safety Act 85 of 1993) (“the Construction Regulations”) for the Affected Property.</li> <li>• warrants that the total of the Prices as at the Contract Date includes enough for proper compliance with the Construction Regulations, all applicable health &amp; 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 &amp; safety in and about the execution of the <i>service</i>; and</li> <li>• undertakes, in and about the execution of the <i>service</i>, to comply with the Construction Regulations and with all applicable health &amp; 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 <i>Contractor</i>’s direction and control, likewise observe and comply with the foregoing.</li> </ul>
Z6.2	The <i>Contractor</i> , in and about the execution of the <i>service</i> , 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 <i>Contractor</i> ’s direction and control, likewise observe and comply with the foregoing.
<b>Z7</b>	<b>Provision of a Tax Invoice and interest. Add to core clause 51</b>
Z7.1	Within one week of receiving a payment certificate from the <i>Service Manager</i> in terms of core clause 51.1, the <i>Contractor</i> provides the <i>Employer</i> with a tax invoice in accordance with the

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

	<i>Employer's</i> procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.
Z7.2	If the <i>Contractor</i> does not provide a tax invoice in the form and by the time required by this contract, the time by when the <i>Employer</i> 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 <i>Employer</i> in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
Z7.3	The <i>Contractor</i> (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 <i>Employer's</i> VAT number 4740101508 on each invoice he submits for payment.
<b>Z8</b>	<b>Notifying compensation events</b>
Z8.1	Delete the last paragraph of core clause 61.3 and replace with:  If the <i>Contractor</i> 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.
<b>Z9</b>	<b><i>Employer's</i> limitation of liability</b>
Z9.1	The <i>Employer's</i> liability to the <i>Contractor</i> for the <i>Contractor's</i> indirect or consequential loss is limited to R0.00 (zero Rand)
Z9.2	The <i>Contractor's</i> entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the <i>Employer's</i> 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.
<b>Z10</b>	<b>Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":</b>
Z10.1	or had a business rescue order granted against it.
<b>Z11</b>	<b>Ethics</b>
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 Subcontractors or Subcontractor's employees, or any one or more of all 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 Subcontractors or the Subcontractor's 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,

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

<b>Fraudulent Action</b>	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, 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 Action</b>	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.
Z11.1	A Committing Party may not take any Prohibited Action during the procurement of this contract or in execution thereof.
Z11.2	The <i>Employer</i> may terminate the <i>Contractor's</i> obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the <i>Contractor</i> did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the <i>Employer</i> 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 <i>Employer</i> can terminate the <i>Contractor's</i> obligation to Provide the Services for this reason.
Z11.3	If the <i>Employer</i> terminates the <i>Contractor's</i> 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 <i>Employer</i> does not have a contractual bond with the Committing Party, the <i>Contractor</i> 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

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

	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> 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	<u>Loss of or damage to property</u> The replacement cost  <u>Bodily injury to or death of a person</u> 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**

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

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

<b>Z13</b>	<b>Nuclear Liability</b>
Z13.1	The <i>Employer</i> 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 <i>Employer</i> is solely responsible for and indemnifies the <i>Contractor</i> or any other person against any and all liabilities which the <i>Contractor</i> 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 <i>Contractor</i> or any other person or the presence of the <i>Contractor</i> or that person or any property of the <i>Contractor</i> or such person at or in the KNPS or on the KNPS site, without the permission of the <i>Employer</i> or of a person acting on behalf of the <i>Employer</i> .
Z13.3	Subject to clause Z13.4 below, the <i>Employer</i> 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 <i>Contractor</i> or any other person, or the presence of the <i>Contractor</i> or that person or any property of the <i>Contractor</i> or such person at or in the KNPS or on the KNPS site, without the permission of the <i>Employer</i> or of a person acting on behalf of the <i>Employer</i> .
Z13.4	The <i>Employer</i> 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.
<b>Z14</b>	<b>Asbestos</b>
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 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 the personal exposure of workers to regulated asbestos fibres follows 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

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

	Material, Equipment and Articles.
<b>SANAS</b>	means the South African National Accreditation System.
<b>TWA</b>	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 <i>Employer</i> ensures that the Ambient Air in the area where the <i>Contractor</i> 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 <i>Contractor</i> , the <i>Employer</i> certifies that these conditions prevail. All measurements and reporting are affected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited, and Department of Employment and Labour approved AAIA. The <i>Contractor</i> may perform Parallel Measurements and related control measures at the <i>Contractor's</i> 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 <i>Employer</i> manages asbestos and ACM according to the Standard.
Z14.4	If 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 <i>Contractor's</i> 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 <i>Contractor</i> 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 <i>Contractor</i> , instructed by the <i>Employer</i> at the <i>Employer's</i> expense, and conducted in line with South African legislation.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## C1.2 Contract Data

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

#### Notes to a tendering *Contractor*:

1. Please read both the NEC3 Term Service Contract April 2013 and the relevant parts of its Guidance Notes (TSC3-GN)<sup>1</sup> to understand the implications of this Data which the tenderer is required to complete.
2. The number of the clause which requires the data is shown in the left-hand column for each statement however other clauses may also use the same data.
3. Where a form field like this [ ] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise, complete by hand and in ink.

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

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

<sup>1</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 5391902 or [www.ecs.co.za](http://www.ecs.co.za)

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

	Qualifications:	
	Experience:	
		<b>CV's (and further key person's data including CVs) are in .</b>
<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

Document reference	Title	No of pages
	This cover page	1
C2.1	Pricing Assumptions	2
C2.2	<i>The Price Schedule</i>	3
	<b>Total number of pages</b>	6

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## C2.1 Pricing assumptions: Option A

### 1. 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 <ul style="list-style-type: none"> <li>the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and</li> <li>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.</li> </ul>
		(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.

### 2. 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.

### 3. 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).

### 4. 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.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

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 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 because of a compensation event.

#### **4.1. 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.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## C2.2 the *price list*

Item No.	Description	Unit	Qty	Rate	Price
1	Safety file First year	Yearly	1		
2	Safety file Year 2 to 4	Yearly	3		
3	Safety Medicals (For 2 People)	No	8		
4	Safety PPE (Safety Boots)	No	4		
5	Safety PPE (Hard Hat)	No	4		
6	Safety PPE High performance (Earmuffs) with noise levels equal to or more than 85 decibels (dBA).- (for 2 personnels) <b>(every 6 months)</b>	No	10		
7	Dust Mask FFP2 with Valve - (for 2 personnels)	No	192		
8	Safety PPE (Work suit)	No	4		
9	Police Clearance	Yearly	8		
10	Travelling per visit including return 425km (120x425)	P/Km	40 800		
11	Every two weeks Calibration/Service of boiler emissions gas analysers for both North and South Stacks	Each	104		
12	Every two months Maintenance of boiler emissions gas analysers for both North and South Stacks	Each	24		
<b>Supply and installation of the below spares during maintenance</b>					
13	Procal CEM P2000 Process Lens- <b>(Part no: 3- 003G)</b>	Each	4		
14	Procal CEM P2000 Main Lens <b>(Part no :3- 0005)</b>	Each	4		
15	Procal CEM P2000 Sample mirror <b>(Part no :3- 0040)</b>	Each	4		
16	Procal CEM Gasket for P2000 in-situ heater <b>(Part no :3- 0104)</b>	Each	8		
17	Procal CEM Gasket for P2000 Mounting flange <b>(Part no: 3- 0102)</b>	Each	8		
18	Procal CEM Gasket for P2000 lens inner seal <b>(Part no: 3-0033)</b>	Each	8		
19	Procal CEM Gasket for P2000 lens outer seal <b>(Part no: 3-0035)</b>	Each	8		

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

20	Procal CEM Gasket for P2000 end mirror (3 tie rod) <b>(Part no: 3-0036)</b>	Each	8		
21	Procal CEM Gasket Clamp Ring 6 hole <b>(Part no: 3-0037)</b>	Each	8		
22	Procal CEM Gasket for tie Rod <b>(Part no: 3-0034)</b>	Each	10		
23	Procal CEM Pressure transducer assembly <b>(Part no: 1-0005)</b>	Each	4		
24	Procal CEM PCB assembly 2-1180J00 <b>(Part no: 2-0003E)</b>	Each	2		
25	Procal CEM Sinter assembly 500mm SS <b>(Part no: 1-0001)</b>	Each	2		
26	Procal CEM IR source for P2000 <b>(Part no: 1-0007E)</b>	Each	4		
27	Procal CEM AVU Coil <b>(Part no: 8-0153)</b>	Each	4		
28	Procal CEM AVU Valve seal <b>(Part no: 12-0026)</b>	Each	4		
29	Procal CEM AVU Valve 15mm N/C <b>(Part no: 8-008G)</b>	Each	3		
30	Procal CEM AVU Valve 15mm N/O <b>(Part no: 8-00G0)</b>	Each	3		
31	Procal CEM Input Module 2-1103-00 <b>(Part no: 2-0016C)</b>	Each	2		
32	Procal CEM Output Module 2-1190-00 <b>(Part no: 2-0017C)</b>	Each	2		
33	Procal CEM Comms chips 5-1584-83 <b>(Part no: 6-0138)</b>	Each	15		
34	Procal CEM Opto-isolators <b>(Part no: 6-0221)</b>	Each	5		
35	Procal CEM Input output Unit (32 input board replacement) <b>(Part no: 1-022G)</b>	Each	2		
36	Procal CEM In-situ Heater 1,8 m <b>(Part no: 1-0032)</b>	Each	2		
37	Procal CEM Gasket for O2 analyser blanking plate <b>(Part no: 3-010G)</b>	Each	8		
38	Procal CEM Ceramic Filter Assembly <b>(Part no: 8-025G0)</b>	Each	8		
39	Procal CEM Replacement detector element for ZFK8 230V <b>(Part no: 8-0331)</b>	Each	4		

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

40	GAS: TYPE: OXYGEN; PURITY: 0.5 PCT; CONTAINER: 50 L; ARNOT: QC TO BE DONE BY CCI BEFORE GASSES ARE BOOKED TO STORES; NMISA CERTIFICATE TO BE PROVIDED WITH EVERY DELIVER	Each	6		
41	GAS: TYPE: NO AND CO <sub>2</sub> ; PURITY: 600 TO 1200 PPM NO AND 12% TO 13.5% CO <sub>2</sub> PCT; CONTAINER: 50 L; GAS MIX: 600 TO 1200PPM NO AND 12 TO 13.5 % CO <sub>2</sub> BALANCE IN N <sub>2</sub> IN 50 LITER CYLINDER INCLUDING NMISA CERTIFICATION	Each	7		
42	GAS: TYPE: SO <sub>2</sub> AND CO; PURITY: 1200 TO 1350PPM AND 800 TO 900 PPM CO BALNCE N <sub>2</sub> PPM; CONTAINER: 50 L; GAS MIX: 50 LITER CYLINDER INCLUDING NMISA CERTIFICATION	Each	7		
43	Moxa RS-232 Serial Converter (Part no: TCC-100I)	Each	7		
44	Procal CEM P2000 Insitu IR Multi component gas analyser (Part no: 1-0032)	Each	2		
45	Procal CEM CO <sub>2</sub> /SO <sub>2</sub> /CO/NO/ H <sub>2</sub> O Sensors (Part no: 17-0003)	Each	2		
46	IOU Retro Fit Kit (Part no: 1-022G)	Each	2		
47	100W Power Supply Unit (Part no: 6-0308)	Each	10		
48	60W Power Supply Unit (Part no: 6-0307)	Each	10		
49	100W Power Supply Unit Case (Part no: 8-0220)	Each	10		
50	60W Power Supply Unit Case (Part no: 8-0118)	Each	10		
51	Procal CEM P2000 Computer	Each	2		
52	Dome nuts (Part no: 3-0241)	Each	6		
53	Procal CEM Ametek Thermox WDG - 210/insitu	Each	5		
54	Procal CEM DC Filter wheel 1 (Part no: 1-0008)	Each	2		

<b>The total of the Prices</b>	
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**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's</i> Service Information	20
C3.2	<i>Contractor's</i> Service Information	0
Total number of pages		21

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## C3.1: EMPLOYER'S SERVICE INFORMATION

### Contents

<b>Part 3: Scope of Work .....</b>	<b>1</b>
<b>C3.1: Employer's service Information.....</b>	<b>2</b>
<b>1 Description of the service.....</b>	<b>4</b>
1.1 Executive overview.....	4
1.2 Employer's requirements for the service.....	4
1.3 Interpretation and terminology .....	8
<b>2 Management strategy and start up.....</b>	<b>8</b>
2.1 The Contractor's plan for the service .....	9
2.2 Management meetings .....	9
2.3 Contractor's management, supervision and key people .....	10
2.4 Provision of bonds and guarantees .....	10
2.5 Documentation control.....	10
2.6 Invoicing and payment.....	10
2.7 Contract change management .....	11
2.8 Records of Defined Cost to be kept by the Contractor .....	11
2.9 Insurance provided by the Employer .....	11
2.10 Training workshops and technology transfer .....	11
2.11 Design and supply of Equipment.....	11
2.12 Things provided at the end of the service period for the Employer's use.....	11
2.12.1 Equipment .....	11
2.12.2 Information and other things .....	11
2.13 Management of work done by Task Order.....	11
<b>3 Health and safety, the environment and quality assurance .....</b>	<b>12</b>
3.1 Health and safety risk management .....	12
3.2 Environmental constraints and management.....	16
3.3 Quality assurance requirements .....	16
<b>4 Procurement .....</b>	<b>16</b>
4.1 People .....	16
4.1.1 Minimum requirements of people employed .....	16
4.1.2 BBBEE and preferencing scheme .....	16
4.1.3 Accelerated Shared Growth Initiative - South Africa (ASGI-SA).....	16
4.2 Subcontracting .....	17
4.2.1 Preferred subcontractors .....	17

**CONTRACT TITLE: SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS**

4.2.2	Subcontract documentation, and assessment of subcontract tenders .....	17
4.2.3	Limitations on subcontracting .....	17
4.2.4	Attendance on subcontractors .....	17
4.3	Plant and Materials.....	17
4.3.1	Specifications .....	17
4.3.2	Correction of defects.....	17
4.3.3	<i>Contractor's</i> procurement of Plant and Materials .....	17
4.3.4	Tests and inspections before delivery.....	17
4.3.5	Plant & Materials provided "free issue" by the <i>Employer</i> .....	17
4.3.6	Cataloguing requirements.....	17
<b>5</b>	<b>Working on the Affected Property.....</b>	<b>17</b>
5.1	<i>Employer's</i> site entry and security control, permits, and site regulations .....	17
5.2	People restrictions, hours of work, conduct and records .....	19
5.3	Health and safety facilities on the Affected Property.....	19
5.4	Environmental controls, fauna & flora .....	19
5.5	Cooperating with and obtaining acceptance of Others.....	20
5.6	Records of <i>Contractor's</i> Equipment.....	20
5.7	Equipment provided by the <i>Employer</i> .....	20
5.8	Site services and facilities .....	20
5.8.1	Provided by the <i>Employer</i> .....	20
5.8.2	Provided by the <i>Contractor</i> .....	21
5.9	Control of noise, dust, water and waste .....	21
5.10	Hook ups to existing works .....	21
5.11	Tests and inspections .....	21
5.11.1	Description of tests and inspections .....	21
5.11.2	Materials facilities and samples for tests and inspections .....	21
<b>6</b>	<b>List of drawings .....</b>	<b>21</b>
6.1	Drawings issued by the <i>Employer</i> .....	21

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 1 Description of the service

### 1.1 Executive overview

The Contractor shall provide full:

#### **Service and Maintenance of Boiler Emissions Gas Analysers for Both South and North Stack at Arnot Power Station for a Period of 4 Years.**

The start and finish dates of the contract will be as provided for in the Contract's terms and conditions. It is required that the gas monitors and its systems be serviced every two weeks in accordance with Eskom's Directive. The two-weekly calibration requirement may be reviewed in the first six months of this contract depending on the performance of the monitors in terms of availability and reliability to provide credible readings. The Contractor will also need to be available during third party correlation tests to verify readings. Arnot Power Station consists of 6 coal-fired power generating units. There are two smokestacks at Arnot, and each stack emits flues gases to the atmosphere. Emissions monitoring is now a legal requirement under the National Environmental Management: Air Quality Act 39 of 2004 (NEMAQA).

Arnot Power Station installed Continuous Emission Monitoring (CEM) gas analysers for gaseous emission measurement on the North and South Smokestacks to measure SO<sub>2</sub>, NO<sub>x</sub>, CO, CO<sub>2</sub> and O<sub>2</sub> gases. The Original Equipment Manufacturer (OEM) of these gas analysers is PROCAL. They are of type Pulsi 200LR the gas analysers were sourced from PROCAL and installed at ARNOT. This was in order to comply with national legislation, NEMAQA act 39 of 2004, Arnot Atmospheric emissions license (No:17/4/AEL/MP313/11/15 under condition 7 sub-section 7.2), Eskom's Emissions Monitoring and reporting standard (240-56242363) as well as the Eskom Generation Standard GGS1086 later superseded by GST36-742, as well as International Standards, BSEN 14181:2004 and BSEN 15259:2007

### 1.2 Employer's requirements for the service

#### **Service and Maintenance of the South and North stack**

**The Service and Maintenance to be carried out shall include but not limited to the following.**

Carrying out full calibrations on the gas analysers with certified gases every two weeks in accordance with Eskom's Emissions Monitoring and reporting standard (240-56242363) issued by Eskom Generation Environmental Management Department).

All the calibration test gases should first be delivered to Eskom, where the gases must be checked against standard gas that has been verified by the National Metrology Institute of South Africa (NMISA, in accordance with this directive. Copies of Certificates of conformance for the calibration gases should be handed over to the Contract Supervisor at ARNOT together with calibration certificates for each calibration visit for the stacks.

Providing a full service and maintenance on the gas analysers in accordance with manufacturer's specifications and applicable standards, this will include but not limited to the **MONTHLY PM** (preventative maintenance).

The Contractor shall be responsible for carrying out all the works during calibration in accordance with the latest revision of Eskom's Emissions Monitoring and reporting standard (240-56242363), or its latest replacement when available. Copies of these documents will be available from Eskom upon request through the Contract Supervisor. The Contractor shall comply with any other standard from Eskom and any legislation promulgated by Government from time to time to the extent to which these analysers shall be affected by the legislation.

**A written status report shall be delivered or emailed to the Employer not more than three days after each system visit by the Contractor, outlining the purpose of the visit, actions performed, results of calibrations, and any other pertinent facts that need to be brought to the Employer's attention.**

In addition, a log will be maintained by the Contract Supervisor and kept with Arnot C&I maintenance. It will be a record of each visit, purpose of visits and any pertinent actions taken on each gas analyser.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

#### Terms of calibration visits

The end user expects the service provider to arrange on his/her own cost should s/he not complete calibration during the contractual calibration visit.

#### Terms of monthly calibration payments

The service provider shall ensure that all analysers worked at are fully operational for payment to be processed.

#### Spares will be on "as and when" required basis

Item No.	Description	Unit	Qty
1	Every two weeks Calibration/Service of boiler emissions gas analysers for both North and South Stacks	Every two weeks	104
2	Every two months Maintenance of boiler emissions gas analysers for both North and South Stacks	Every two months	24
Supply and installation of the below spares during maintenance			
3	Procal CEM P2000 Process Lens ( <b>Part no: 3- 003G</b> )	Each	4
4	Procal CEM P2000 Main Lens ( <b>Part no :3- 0005</b> )	Each	4
5	Procal CEM P2000 Sample mirror ( <b>Part no :3- 0040</b> )	Each	4
6	Procal CEM Gasket for P2000 in-situ heater ( <b>Part no :3- 0104</b> )	Each	8
7	Procal CEM Gasket for P2000 Mounting flange ( <b>Part no: 3-0102</b> )	Each	8
8	Procal CEM Gasket for P2000 lens inner seal ( <b>Part no: 3-0033</b> )	Each	8
9	Procal CEM Gasket for P2000 lens outer seal ( <b>Part no: 3-0035</b> )	Each	8
10	Procal CEM Gasket for P2000 end mirror (3 tie rod) ( <b>Part no: 3-0036</b> )	Each	8
11	Procal CEM Gasket Clamp Ring 6 hole ( <b>Part no: 3-0037</b> )	Each	8
12	Procal CEM Gasket for tie Rod ( <b>Part no: 3-0034</b> )	Each	10
13	Procal CEM Pressure transducer assembly ( <b>Part no: 1-0005</b> )	Each	4
14	Procal CEM PCB assembly 2-1180J00 ( <b>Part no: 2-0003E</b> )	Each	2
15	Procal CEM Sinter assembly 500mm SS ( <b>Part no: 1-0001</b> )	Each	2
16	Procal CEM IR source for P2000 ( <b>Part no: 1-0007E</b> )	Each	4
17	Procal CEM AVU Coil ( <b>Part no: 8-0153</b> )	Each	4
18	Procal CEM AVU Valve seal ( <b>Part no: 12-0026</b> )	Each	4
19	Procal CEM AVU Valve 15mm N/C ( <b>Part no: 8-008G</b> )	Each	3
20	Procal CEM AVU Valve 15mm N/O ( <b>Part no: 8-00G0</b> )	Each	3
21	Procal CEM Input Module 2-1103-00 ( <b>Part no: 2-0016C</b> )	Each	2
22	Procal CEM Output Module 2-1190-00 ( <b>Part no: 2-0017C</b> )	Each	2

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

23	Procal CEM Comms chips 5-1584-83 <b>(Part no: 6-0138)</b>	Each	15
24	Procal CEM Opto-isolators <b>(Part no: 6-0221)</b>	Each	5
25	Procal CEM Input output Unit (32 input board replacement <b>(Part no: 1-022G)</b>	Each	2
26	Procal CEM In-situ Heater 1,8 m <b>(Part no: 1-0032)</b>	Each	2
27	Procal CEM Gasket for O2 analyser blanking plate <b>(Part no: 3-010G)</b>	Each	8
28	Procal CEM Ceramic Filter Assembly <b>(Part no: 8-025G0)</b>	Each	8
29	Procal CEM Replacement detector element for ZFK8 230V <b>(Part no: 8-0331)</b>	Each	4
30	GAS: TYPE: OXYGEN; PURITY: 0.5 PCT; CONTAINER: 50 L; ARNOT: QC TO BE DONE BY CCI BEFORE GASSES ARE BOOKED TO STORES; NMISA CERTIFICATE TO BE PROVIDED WITH EVERY DELIVER	Each	6
31	GAS: TYPE: NO AND CO2; PURITY: 600 TO 1200 PPM NO AND 12% TO 13.5% CO2 PCT; CONTAINER: 50 L; GAS MIX: 600 TO 1200PPM NO AND 12 TO 13.5 % CO2 BALANCE IN N2 IN 50 LITER CYLINDER INCLUDING NMISA CERTIFICATION	Each	7
32	GAS: TYPE: SO2 AND CO; PURITY: 1200 TO 1350PPM AND 800 TO 900 PPM CO BALNCE N2 PPM; CONTAINER: 50 L; GAS MIX: 50 LITER CYLINDER INCLUDING NMISA CERTIFICATION	Each	7
33	Moxa RS-232 Serial Converter <b>(Part no: TCC-100I)</b>	Each	7
34	Procal CEM P2000 Insitu IR Multi component gas analyser <b>(Part no: 1-0032)</b>	Each	2
35	Procal CEM CO2/SO2/CO/NO/ H2O Sensors <b>(Part no: 17-0003)</b>	Each	2
36	IOU Retro Fit Kit <b>(Part no: 1-022G)</b>	Each	2
37	100W Power Supply Unit <b>(Part no: 6-0308)</b>	Each	10
38	60W Power Supply Unit <b>(Part no: 6-0307)</b>	Each	10
39	100W Power Supply Unit Case <b>(Part no: 8-0220)</b>	Each	10
40	60W Power Supply Unit Case <b>(Part no: 8-0118)</b>	Each	10
41	Procal CEM P2000 Computer	Each	2
42	Dome nuts <b>(Part no: 3-0241)</b>	Each	6
43	Procal CEM Ametek Thermox WDG - 210/insitu	Each	5
44	Procal CEM DC Filter wheel 1 <b>(Part no: 1-0008)</b>	Each	2

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## Calibration

- Only an authorised supplier or contractor is allowed to provide maintenance and calibration services to the equipment installed. *The Contractor* is to provide proof of authorisation when requested by *the Employer* through the *Contract Supervisor*.
- *The Contractor* obtains verification and certification of calibration bottles from the National Metrology Institute of South Africa (NMISA, in accordance with this directive. Copies of Certificates of conformance for the calibration gases *The Contractor* to submit signed copies of certificates of conformance for the calibration test gases to Contract Supervisor for filing. The Contractor provides the results of each calibration to the Contract Supervisor.
- *The Contractor* to provide a maintenance report on the condition of the analyser status before and after repairs. This should be sent digitally (in pdf format) to the Eskom Contract Supervisor.
- The Contract Supervisor shall be responsible for the distribution of these reports to the internal stakeholders in Eskom.

## Description of the service

***The Contractor shall carry out full calibrations on the gas Analysers with certified gases every two weeks in accordance with the Eskom Directive (GEM10\_L153 of 15 July 2010 issued by Eskom Generation Environmental Management Department),***

All the calibration will be checked against standard gas that has been verified by the **National Metrology Institute of South Africa (NMISA)**, in accordance with this directive. Copies of Certificates of conformance for the calibration gases should be handed over to the Contract Supervisor at ARNOT together with calibration certificates for each calibration visit for the stacks.

Providing a full service and maintenance on the gas Analysers in accordance with manufacturer's specifications and applicable standards, which will include but not limited to?

***The Contractor will also be available for the following activities:***

- **Emergency breakdown maintenance as and when required after hours including weekends and public holidays.**
- **Call out duties during normal hours as well as for afterhours including weekends and public holidays.**

## Requirements for the programme:

The Contractor must submit the qualifications of the competent people that will be carrying out the works information as stipulated in this contract, to the Employer, for acceptance, with all the relevant references as and when required.

*The Contractor* must submit the project implementation programme at the start of this contract. The program must include but is not limited to the following:

- A safe work procedure must be submitted at the commencement of the contract
- Safety file within the first week of the contract start date
- Names of the possible /potential candidates/employees assigned for Arnot Power Station
- List of all required consumables and spares which shall include all specifications/part numbers, supplier's name and all relevant information as deemed necessary to ease the procurement process. This list must be submitted to *the Employer's* Representative at the start of the contract.
- No work shall commence without all employees having done safety induction and medical checks prescribed by the Employer. The Contractor must at all times comply with Employer's safety regulation

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

### 1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
CEM	Continuous Emission Monitoring
NEMAQA)	National Environmental Management: Air Quality
Sox	Sulphur oxides
NOx	Nitric oxide
CO	Carbon monoxide
O2	Oxygen
CO2	carbon dioxide
ERIC	Eskom Directive and Innovation Centre
AST	Annual Surveillance Test
DCS	Distributed Control System
CM	Corrective Maintenance
PM	Preventative maintenance
TSC	Term Service Contract
QA	Quality Assurance
QCP	Quality Control Plan
OHSACT	Occupational Health and Safety Act
LCO	Local Control Office
C&I	Control and Instrumentation
TSC	Term Service Contract
PPE	Personal Protective Equipment
RA	Risk Assessment

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 2 Management strategy and start up.

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

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

The *Contractor* shall provide the *Employer* with their *Contractor's* plan.

The *Contractor* must submit the *Contractor's* plan at the inception of this contract.

The *Contractor's* plan must include but is not limited to the following:

- Quality management system implementation programme
- A Quality Control Plan (QCP) for each Task Order with a hold, witness and verification point for *The Employer* to check and monitor progress
- Safety plan including implementation programme
- Staff Qualifications and experience and/or time frame for appointment of staff
- A programme and resource schedule for the *service* and for each Task Order.
- Bar charts or other reporting formats, as may be required by the *Employer*, are provided for all Task Orders Indicating start, inspection and completion dates, resources and costs.
- Names of the possible /potential candidates/employees.
- Any staff replacement should be accepted by the *Employer*, and the replacement must meet the conditions stipulated above.

Programmed maintenance will be carried out during the *Contractor's* working hours and as required in terms of the 24-hour standby provision. In case of any major breakdowns, a repair plan of action must be submitted to the *Employer* within 12 hours. Repair work must commence no later than the time agreed between the *Employer* and the *Contractor* on his plan of action.

The following reports are required as supporting documentation to the program:

- Time analysis print-out
- Critical activities report
- Key event report

Planning and scheduling meetings will be held when necessary and the *Employer* will inform the *Contractor* of the format and time of these meetings.

The *Contractor* submits every two weeks progress reports with copies of daily occurrence sheets attached. The daily occurrence sheet records all events, which may affect the compensation events. The *Contractor* may under no circumstances see or use, the submission of daily occurrence sheets and progress reports, as an early warning or compensation event notification, in terms of the Term Services Contract (TSC). The *Contractor* commences with the work in accordance with the *Contractor's* plan and completes the service not later than the completion dates indicated on the *Contractor's* plan.

If the *Contractor* fails to complete any part of the service according to the *Contractor's* plan or it becomes apparent to *Service Manager* that the service not to be completed according to the *Contractor's* plan and if such failure is due to the *Contractor* then the *Contractor* submits his plan of action to the *Service Manager* to deal with the delay and the *Contractor* reports daily on the success of his plan of action.

### 2.2 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk registers and compensation events	Every two weeks basis when the contractor comes on site for the calibration	C&I Workshop	<i>Employer</i> & the <i>Contractor</i>
Overall contract progress and feedback	Monthly on when the contractor comes on site for the calibration	C&I Workshop	<i>Employer</i> & the <i>Contractor</i>

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

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.

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

Not applicable for this contract

## 2.4 Provision of bonds and guarantees

Not applicable for this contract

## 2.5 Documentation control

- The *Contractor* will ensure that the following documentation is kept in the *Employer*'s documentation centre and captured on the SAP system (by the *Contractor*) for record and trending purposes:
- Works procedures (QA packages)
- Generic procedures to use test equipment.
- Feedback and test results into SAP PM
- PMs for all mechanical equipment
- History to be recorded on all of maintenance done
- *Contractor* to supply status on notifications and service cards if and when required.
- Check isolations and signs for plant safety permits as a responsible person.
- Ensures effective communication with customers.
- Maintain records and statistics.
- Advice and design changes with relevant drawing on sequencing trip conditions if necessary.
- Liaises with the work scheduler/service manager to ensure that high priority jobs get preference over normal planned work.
- Liaises with the originator of the deviation to get clear understanding of what is required to minimise delays and prevent confusion or rework.

## 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 address the tax invoice to [invoiceseskomlocal@eskom.co.za](mailto:invoiceseskomlocal@eskom.co.za) and 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.
- (add other as required)

Add procedures for invoice submission and payment (e.g. electronic payment instructions)

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## 2.7 Contract change management

An early warning shall be sent by both parties for the notification of any changes on the contract, using NEC3 TSC standard forms

Any change of the *Contractor's* company ownership should be communicated through to the *Service Manager*. Failing to do this may lead to contract termination with legal consequences.

If the *Employer's Service Manager* change, the *Contractor* will be notified by the Employer as soon as possible to ensure that the *Contractor* follow the correct communication channels

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

To substantiate the Defined Cost of Compensation Events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, Plant and Materials, work subcontracted by the *Contractor* and Equipment.

## 2.9 Insurance provided by the *Employer*

Insurance provided by the *Employer* is stipulated under data provided by *Employer*, Refer to Insurance Section on point Z12 of Contract

## 2.10 Training workshops and technology transfer

The Service provider will make them-selves available to provide "on-the-job" type training on maintenance of gas analysers when required by Eskom

## 2.11 Design and supply of Equipment

All tools and equipment provided by the *Contractor* to be SABs Compliant and to be checked as to whether they comply with the necessary Health and Safety requirements of Arnot Power Station.

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

### 2.12.1 Equipment

Not applicable to this contract.

### 2.12.2 Information and other things

All plant records will become the property of Eskom Generation after the contract has expired. Advice and design changes with relevant drawing on sequencing trip conditions if necessary.

## 2.13 Management of work done by Task Order

- Work is to be done in accordance with the written Task Order issued by the *Employer*.
- All work done is valued in accordance with the Price List unless otherwise specified.
- Actual quantities will be determined where applicable based on the requirements of each Task Order. The *Contractor* provides all necessary information required by the *Employer* to determine the cost at the assessment date for monthly costs and for each Task Order.

The *Service Manager* may at any time instruct the *Contractor* orally, followed up in writing, to carry out work which is of an emergency nature. The *Contractor* shall issue a quote for the emergency work to the Service Manager for this work before the end of the next business day. The *Service Manager* will then create the order for the task and send the task order assessment.

The prices for each item of work within the service shall be those on the Price List. Clause X19.3 requires that the items of work within the service which are not on the Price List are assessed as for compensation events.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

**A Task Order includes:**

- A detailed description of the work in the Task
  - A priced list of items of work in the Task in which items taken from the Price List are identified.
  - The starting and completion dates for the Task
  - Conditions of the service agreement is in accordance with the Task Order issued
  - No Task Order is issued after the end of the service period.
- When any emergencies do arise, it is required from the Contractor to adhere to the following terms:
- The Contractor will be informed of emergencies when the Service Manager first becomes aware of it.
  - Response time within 1 hour for any communication when the Contractor acknowledges the emergency.

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

#### 3.1 Health and safety risk management

The *Employer* is responsible for access permits cost.

Safety Induction must be attended by all *Contractors'* staff. PPE must be worn at all times. The *Contractor* must adhere to all Eskom safety regulations as well as Eskom lifesaving rules for safety. Cost of Contractor 's medical examination, safety induction are for the *Contractor* 's account.

*Contractor* is responsible for supplying his staff with Personal Protective Equipment (PPE) which is SABS approved, and equipment should be in accordance with the Occupational Health and Safety Act (OHSACT) and site-specific requirements, including the use of this equipment's.

The *Contractor* must submit a safety plan which complies to safe working procedures, and it must be approved by the Project Manager.

The *Contractor* will also be responsible for the safe keeping and repairs of the tools in the event of any loss or damage to the tools. This will include the safe handling of the tools and the areas that the Employer makes available to the *Contractor*.

The *Contractor* is responsible for reporting any incident that occurs to his employees when performing the works on site to the *Employer* before leaving site.

#### **Safety notification Arnot Power Station GMR 2.1**

The following serves as a compliance and notification instruction with reference to the OSHACT, Act 85 of 1993 and any amendments thereto; BCEA and LRA of South Africa

- All safety related incidents (Category A, B&C; Fire Incidents; Usage of Fire Extinguishers and Near misses) shall be immediately notified to the ARNOT Power Station Safety Risk Management Personnel.
- All Category C incidents shall be immediately notified to the service Manager, either telephonically or in person.
- All personnel are allowed to wear Safety Harnesses whilst walking through plant or whilst in a lift (passenger/goods) only if they are secured properly onto the person and no loose sections of the harness drags onto floors, gratings, etc. where it can get caught and restrict a person's movement.
- During working on elevated positions all personnel, including scaffolders to use Safety Harness, which they shall attach onto Lifelines or secure as per the *Contractors* Fall
- Protection Plan, which each *Contractor* shall have written and available on site for perusal, as and when required.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

- All Safety Harnesses shall comply with: SANS EN 362:1992; 363:1992; 362:1992; 365:1992, 364:1992 Codes of Practice
- In terms of Section 16.1 of the OSHACT, "Every chief executive officer shall as far as is reasonably practicable ensure that the duties of his *Employer* as contemplated in this Act, are properly discharged." Basically, every employee, permanent/temporary/part-time/sub-contracted onto the ARNOT Site shall be treated as an "employee" in terms of the Act whilst under your "direct supervision and care".
- All employees as stated in 5 above have a right to "free issue" safety equipment, which shall be supplied to them prior to commencement of work. The equipment shall comply to the relevant SABS standards and shall be in proper working condition, clean and undamaged whilst working on the ARNOT Site.
- In terms of the BCEA and LRA all employees shall be afforded a fair minimum wage, including allowances for meals and transport, if not provided, which has been agreed and set by the relevant Bargaining Councils, which form part of the Acts.
- All employees shall be granted 3 breaks during the course of a 12-hour shift (1x 15 minute break in the morning; 1 x 30-minute lunch break midday; and 1 x 15 minute break in the afternoon). Refreshments or meals shall be provided or be the responsibility of the *Contractor (Employer)*. Employees cannot be allowed to work without having proper meals or refreshments.
- All *Contractor* employees entering the ARNOT Power Station site shall be medically fit. A full medical examination shall have been carried out by a Registered Occupational Health Worker who shall issue a certificate confirming the medical fitness of the employee. The examination shall consist of an eye test, heart function, lung function, chest x-ray, blood pressure, hearing function, previous occupational injuries, epilepsy, allergies, asthma and verification of work in elevated/confined spaces. Basically, a full evaluation (a Red Ticket) shall be done and only those that pass these examinations shall be allowed to work on ARNOT Power Station.
- In terms of Section 8.2 & 18.3 of the OSHACT, *Employers* shall ensure that employees working at ARNOT Power Station are trained in the hazards associated with the tasks and the precautionary measures are taken in the interest of health and safety. The responsibility of shall include compliance and adherence to the Eskom Plant Safety Regulations, Permit to Work System and Emergency Care.
- All *Contractor* s to ensure that the ARNOT Emergency Alarm is activated for serious injuries and the injured shall not be 'moved' by the *Contractors* staff unless in a condition which threatens the injured or other parties' life. Movement of injured persons (employees) shall be done by a trained First Aider, who shall always be at the site during the work phase.
- All *Contractors* shall send a Safety Officer/Representative to all Safety Meetings arranged by the Power Station.
- Safety Officers shall be at site or as reasonably practical to ensure that all hazards' risks are identified and corrective action is taken.
- All *Employers* shall ensure that any employee disregarding a safety instruction is not allowed to be a risk to the *Contractor*, ARNOT Power Station or other parties whilst on this site. The appropriate disciplinary action shall be taken against these employees.
- The *Contractor* shall have daily Toolbox talks, periodic site inspections, job observations, risk assessments, safety equipment checks and safety talks with all employees.
- Safety Induction will be done by the Power Station on prior arrangements but is not the minimum requirement. Induction and hazards training shall be done by the *Contractor*.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

- In term of Section 37.2 of the OSHACT, you the *Contractor* will ensure compliance with all requirements of the OSHACT and any instruction/notification that enhances those requirements.
- All *Contractors* to ensure that a Safety Manual is completed prior to working on site and the relevant appointees are fully conversant with their responsibilities are trained and competent in those requirements, training proof is available, and appropriate re-training is done.
- *Contractors* to ensure that all staff, whether permanent/non-permanent/supplied by Labour Broker are competent in their relevant disciplines that they are employed/contracted in and all proof of training, experience, etc. is available and is current. Appropriate re-training shall have been done.
- Due to all staff being under the “direct supervision and control” of yourself, they shall and will be treated as an ‘employee’, as defined in the OSHACT, Act 85 of 1993.

### **Hard hats Specification**

In the case of *Contractor* employees:

- For working at height and ground level, hard hats fitted with a three-point chin strap that meets the requirements of the SANS standard must be used.
- In the case where hearing muffs are required to be worn and to ensure proper fit, a hard hat fitted with a single chin strap, made from non-elastic material, will be required.
- Hard hats must display the applicable emergency number or the applicable local emergency number. This must be clearly displayed on the back of every hard hat.
- The use of zero-harm stickers and the display of the emergency number to be of the same type as above
- *Contractors* should place their own company logo and not an Eskom logo in the front of the hard hat.
- The colour coding for the hard hats shall be according to contractor’s internal procedures.

In the case of any **visitor** entering an area where a hard hat is a requirement at any Eskom site, He or she shall wear a hard hat fitted with at least a single chin strap, unless such a person needs to Enter an area involving heights. This information must be communicated to visitors prior to them visiting a site. A proper **risk assessment** shall be conducted to establish the need for hard hats and to identify. The type of hat to be purchased e.g., hard hats for work at heights must have a short peak.

### **Minimum requirements for hard hats**

- a) All hard hats used shall bear the SABS mark in accordance with SANS 1397:2003.
- b) The hard hat shall include a shell, a harness, and a chin strap.
- c) All hard hats shall have electrical insulation of at least 440 VAC (volts alternating current).

d) The hard hat shall be made of durable quality material that has no sharp edges or material known To cause health effects and can withstand exposure to sun, rain, cold, dust and vibrations.

### **Medical Facilities**

Ambulance and first aid facilities are available at the PowerStation.

### **Safety and Accident Prevention**

The *Contractor* will be familiar with and comply with Arnot Power Station’s safety policies and procedures. Furthermore, the *Contractor* will comply with the provisions of the Occupational Health and Safety Act, and particularly the provisions of the Construction Regulations.

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 Contractor* will report any incident and accidents to Arnot Power Station within 24 hours.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

**NOTE!** This report does not relieve the *Contractor* of his legal obligation 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.

**Compliance to 5 identified lifesaving rules:**

**Rule1: Open, Isolate, Test, Earth and create equipotential zone before touch**

(That is, any plant operating above 1 000 V)

No person may work on any electrical network unless:

- He/she is trained and authorised as competent for the task to be done.
- A pre-task risk assessment to identify all risks and hazards has been conducted prior to any work commencing.
- An equipotential zone is created for each worker on the job site by earthing, bonding, and/or insulating according to approved procedures.
- All conducting material is connected, all staff on site wear electrical safety shoes, and insulating techniques are applied according to standards; and
- The authorised person (team leader) has certified and shown all team members that the apparatus is safe to work on.

**Rule 2: Hook up on heights**

Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/she exposes himself/herself to a fall from or into.

No person may work at height where there is a risk of falling unless:

- A pre-task risk assessment to identify all risks and hazards has been conducted prior to commencing any work at height.
- He/she is appropriately trained.
- He/she is appropriately secured during ascending and descending and
- He/she is using an approved fall arrest system where applicable.

**Rule 3: Buckle up.**

No person may drive any vehicle on Eskom business and/or on Eskom premises unless the driver and all passengers are wearing seat belts.

**Rule 4: Be Sober**

- No person is allowed to work under the influence of drugs and alcohol.
- "Under the influence" means the use of alcohol, drugs, and/or a controlled substance to the extent that
- He individual's faculties are in any way impaired by the consumption or use of the substances; or
- The individual is unable to perform in a safe, productive manner; or
- The individual has a level of any such substance in his/her body that corresponds to or exceeds accepted medical/legal standards; or
- The individual has a level of alcohol in his/her body that is greater than 0.02% blood alcohol concentration.

This includes any level of an illegal substance in the body, irrespective of when the substance was used.

**Rule 5: Ensure that you have a permit to work.**

Where an authorisation limitation exists, no person shall work without the required Permit to Work (PTW), which is governed by the Plant Safety Regulations, Operating Regulations for High Voltage Systems (ORHVS) etc.

- No plant is to be returned to service without the cancellation of all permits on that plant in accordance with procedure.

NB: In the case of live work, a "live work declaration form" is to be completed by the authorised person who is the person responsible for the safe execution of work according to relevant standards and procedures.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

Please ensure that these rules are understood and communicated with the urgency that they deserve. If any of these rules are unclear or the consequences not understood, please do not hesitate to discuss it with Eskom.

We would like to continue our current partnership and therefore urge your support in the implementation and upholding of these rules.

The *Contractor* shall comply with the health and safety requirements mentioned above to this Service Information.

**Rule 6: Ensure safe live working.**

- Ensure all live work basic principles are adhered to, as outlined (for the method being used) in the High Voltage Live Working Standard for the respective division.
- Observe and maintain the minimum approach distance (MAD).
- Only perform live work (never mix live and dead work on the same site at the same time)

## **3.2 Environmental constraints and management**

The *Contractor* shall comply with the environmental criteria and constraints as per National and Eskom standards and guidelines prescribed for the SHEQ file. This may from time to time be updated and will be adhered to at all times for the duration of the contract.

## **3.3 Quality assurance requirements**

The *Contractor* will comply with the *Employer's* Quality Requirements - ARNOT Business excellence Quality Standard

Quality requirements include visual inspection by the *Employer*, who will be entitled to witness the activities at any time. The *Employer* shall also have the right to stop work and re-instruct the *Contractor* to redo the work at no cost to the *Employer*, such instruction will be given by the appointed *Contract Supervisor*, and the *Contractor* shall comply with the requests.

The *Employer* may, by arrangement, inspect completed work. If in the opinion of the *Employer*, the work does not comply with the quality requirements expected from the *Contractor*, the *Employer* shall instruct the *Contractor* to rectify the faults. The *Contractor* will comply with these instructions.

# **4 Procurement**

## **4.1 People**

### **4.1.1 Minimum requirements of people employed**

The *Contractor* shall ensure that they have **at least two people to execute the work on site.**

### **4.1.2 BBBEE and preferencing scheme**

The *Contractor* must be BEEE compliant. The copy of the certificate will be required.

### **4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)**

The *Contractor* shall keep accurate records and provide the *Service Manager* with reports on the *Contractor's* actual delivery against the above stated Supplier Development, Localisation and Industrialisation formerly known as ASGI-SA criteria.

The *Contractor's* failure to comply with his Supplier Development, Localisation and Industrialisation formerly known as ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## **4.2 Subcontracting**

### **4.2.1 Preferred subcontractors**

Not applicable to this contract

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

Not applicable to this contract

### **4.2.3 Limitations on subcontracting**

Not applicable to this contract

### **4.2.4 Attendance on subcontractors**

Not applicable to this contract

## **4.3 Plant and Materials**

### **4.3.1 Specifications**

Not applicable to this contract

### **4.3.2 Correction of defects**

All defects shall be corrected within a period of 24 hours

The *Contractor* corrects a defect whether the *Service Manager* notifies him of it or not to minimise the adverse effect on the *Employer* or others.

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

The *Contractor* shall provide all the spares required for the service and maintenance as per the scope requirement.

### **4.3.4 Tests and inspections before delivery**

Materials are to be inspected and tested before delivery (Provide formal proof)

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

There will be no free issued of materials

### **4.3.6 Cataloguing requirements by the Contractor**

Not applicable to this contract

## **5 Working on the Affected Property**

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

The *Contractor* applies for access permits (*Contractor's* permit) at the security gate on the start date of the contract. The *Contractor* personnel shall be required to be always in the possession of an access permit.

To assist Protection Services with the issuing of permits and the identification of personnel on site the successful contractor is to supply a list of all personnel that He/she intends using on site, at least 72 hours prior to entry of the Security Area. This list must be delivered to Protection Services. The list, identified with the *Contractors* name, is to contain the following information:

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

- Employee name
- Employee ID Number
- The *Employers* Safety Coordinators signature
- Control and Instrumentation Maintenance Manager signature
- Copy of the first page of the ID book of every employee of the *Contractors*, photocopied.

Access permits must be returned to protection services when the workers leave the site, either after Completion of the services, or upon earlier termination of the service of the worker during the Contract

To speed up the process of gain access to the site, the *Contractor* must compile detailed list of all tools and equipment to be taken on site before arriving at the Power Station Security gate. An authorised copy of this list must be retained by the *Contractor*- to be used again when the tools and equipment are removed from the site after the completion of the services.

Any additional tools or equipment brought to site, or any tools or equipment removed during the contract period must be reported to protection services and all lists amended likewise. Gate release permits will not be issued for the removal of ant tools or equipment not specified on the tool list.

The *Contractors* visitors and all personnel shall always conform to the security arrangements in force at the site. Application forms for visitors must be filled in by the *Contractors* Site Manager and approved by the *Service Manager*, one day before the visit and submitted to the *Employers* Protection Services office. Visitors will not be allowed on site if the necessary forms are not in the possession of the security staff.

The Chief of Protection Services may, with valid cause, remove any, of the *Contractors* personnel from the site, either temporarily, or permanently. He may deny access to the site to any person whom, in the security staff.

No unauthorised vehicles will be allowed on site. Only *Contractors* vehicles with displayed Contract vehicle Permits disks will be allowed on site. Contract vehicle Applications should be directed to the *Service Manager*.

The *Contractor* will be restricted to the working areas associated with his/her place of work. The *Contractor* is forbidden to enter any other areas and must ensure that his employees abide by these regulations'.

No recruiting of casual labour may be done on the *Employers* premises, including the area outside the Power Station Security Gate.

### **Fire Precaution**

Any tampering with the Employers fire equipment is strictly forbidden.

All exit doors, fire escape route, walkways, stairs, stairs landings and access to electrical distribution boards must be kept free of obstruction and not be used for work storage at all times. Firefighting equipment must always remain accessible.

In case of a fire, report the location and extent of the fire to the **LCO** at extension **5035**.

### **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 Reoccurrence 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 and any damage to the property or equipment must be reported within 12 hours.

This report does not relieve the *Contractor* of his legal obligation 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.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

### **Barricading and Screens**

The *Contractor* will provide and install barricades and warning devices to ensure that equipment and persons are not exposed to danger or to prevent access to dangerous areas.

All welding, flame cutting and grinding work shall be properly screened to protect persons from any injuries. All gratings shall be covered with the adequate protective screening when welding or flame cutting in the vicinity.

### **Speed limit**

All vehicles must be driven with due consideration for personnel and property. A maximum speed limit of **40km per hour** will be always adhered to on the premises.

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

All Site access is controlled through the designated access gate.

The *Contractor* is informed of the access procedures through Site regulations and that such procedures may change depending on the prevailing security situation.

All vehicles must be driven with due consideration for personnel and property. A maximum speed limit of 40 kilometres per hour will be always adhered to on the premises.

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 co-operate fully to achieve this objective. **The Service Manager must be informed within 24 hours of any injuries or damage to property or equipment.**

This report does not relieve the *Contractor* of his legal obligation 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.

The *Contractor* will be required to work the same hours as the *Employer's* employees.  
Monday to Thursday 07h00 to 16h15 with a necessary required lunch break.  
Fridays we work from 07h00 to 12h00. If these times change the *Contractor* will be required to adjust as well.

The *Contractor* keeps records of his people working on the Affected Property, including those of his Subcontractors. The *Service Manager* shall have access to them at any time. These records may be needed when assessing compensation events.

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

Medical facilities are available on site for emergencies only.

- The *Contractor* provides a First Aid service to his employees. In the case where these prove to be inadequate, as in the event of a serious injury, the *Employer's* Medical Centre and facilities will be available.
- Outside the *Employer's* office hours, the *Employer's* First Aid Services will only be available for serious injuries and life-threatening situations.
- The *Employer* shall be entitled, however, to recover the costs incurred, in the use of the above *Employer's* facilities, from the *Contractor*.

## **5.4 Environmental controls, fauna & flora**

*Contractor* to comply with legislations and procedures set out on the TSC3.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

## **5.5 Cooperating with and obtaining acceptance of Others**

The *Contractor* co-operates with Others in obtaining and providing information which they need in connection with the service. He co-operates with Others and shares the Affected Property with them as stated in the Service Information.

## **5.6 Records of *Contractor's* Equipment**

Any equipment brought onto site by the *Contractor*, must be declared with Security

## **5.7 Equipment provided by the *Employer***

Not applicable for this Service Contract.

## **5.8 Site services and facilities**

### **5.8.1 Provided by the *Employer***

A site for the *Contractor's* yard is provided by the *Employer*. A written request, indicating the *Contractor's* requirements in locality and area of storage, office and Workshop sites is submitted to the *Service Manager* as soon as possible after the Contract Date.

#### **Potable water**

Water supply is provided by the *Employer*.

#### **Meals**

Meals on site for *Contractor's* personnel are not available.

#### **Sanitary Facilities**

Sanitary facilities are provided by the *Employer*.

#### **General**

The *Contractor* is to comply with all Site regulations and instructions. The onus is on the *Contractor* to ensure his familiarity with the *Employer's* Site regulations and inspections.

#### **Fire Protection**

The *Contractor* is to comply with requirements of Eskom Standard NWS 1494 Revision 4 "Fire prevention and protection of *Contractor's* premises on Engineering Sites" and of Site Regulations pertaining fire protection.

#### **Fire Precautions**

Any tampering with the *Employer's* fire equipment is strictly forbidden. All exit doors, fire escape routes, walkways, stairways and stair landings must be kept free of obstruction, and not to be used for work or storage at any time. Firefighting equipment must always remain accessible.

#### **Plant Safety Regulations**

The *Employer* shall on request from the *Contractor* isolate required plant from all sources of danger as described in the Plant Safety Regulations. The *Contractor* shall conform to all rules and regulations applicable to Plant Safety and shall complete the Workman's Declaration Book prior to working on the plant.

#### **Induction training to employees**

No person will be issued with an access permit without proof that the person did attend the local Arnot Power Station induction course.

A one-day access permit will be issued for persons attending the induction course. It is the *Contractor's* responsibility to arrange with the *Project Manager* one week in advance for a course booking.

**CONTRACT TITLE:** SERVICE AND MAINTENANCE OF BOILER EMISSIONS GAS ANALYSERS FOR BOTH SOUTH AND NORTH STACK AT ARNOT POWER STATION FOR A PERIOD OF 4 YEARS

#### **5.8.2 Provided by the *Contractor***

Not applicable for this contract

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

*Contractor* to follow SHEQ Procedures

### **5.10 Hook ups to existing works**

Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/she exposes himself/herself to a fall from or into.

No person may work at height where there is a risk of falling unless:

A pre-task risk assessment to identify all risks and hazards has been conducted prior to commencing any work at height.

He / she are appropriately trained.

He / she is appropriately secured during ascending and descending; and

He / she are using an approved fall arrest system where applicable

### **5.11 Tests and inspections**

#### **5.11.1 Description of tests and inspections**

*Contractor* must supply QC report.

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

Not applicable for this Service Contract

## **6 List of drawings**

### **6.1 Drawings issued by the *Employer***

Not applicable for this Service Contract