



NEC3 Term Service Contract (TSC3)

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

and [Insert at award stage]
(Reg No. _____)

for **Five-Year Maintenance and Service contract for
Diesel Compressors (Mobile and Station Units) at
Duvha Power Station**

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CONTRACT No. [Insert at award stage]

PART C1: AGREEMENTS & CONTRACT DATA

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

Offer

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

Five-Year Maintenance and Service contract for Diesel Compressors (Mobile and Station Units) at Duvha Power Station

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

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

Options A or C	The offered total of the Prices exclusive of VAT is	R [•]
	Sub total	R [•]
	Value Added Tax @ 15% is	R [•]
	The offered total of the amount due inclusive of VAT is ¹	R [•]
	(in words) [•]	

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

Signature(s)

Name(s) _____

Capacity _____

For the tenderer: _____

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

Date

Tenderer's CIDB registration number:

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

Acceptance

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

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work: Service Information

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

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

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

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

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.

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	[•]	[•]
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]
7	[•]	[•]

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

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

	For the tenderer:	For the Employer
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	(Insert name and address of organisation)	(Insert name and address of organisation)
Name & signature of witness	_____	_____
Date	_____	_____

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X1: Price adjustment for inflation
		X2: Changes in the law
		X17: Low service damages
		X18: Limitation of liability
		X19: Task Order
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract April 2013 ² (TSC3)	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
	Tel No.	013 690 0330
	Fax No.	
10.1	The <i>Service Manager</i> is (name):	Andries Nxumalo
	Address	Duvha Power Station P O Box 2199, Witbank 1035
	Tel	013 690 0683
	Fax	

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

	e-mail	MtembuML@eskom.co.za
11.2(2)	The Affected Property is	Duvha Power Station
11.2(13)	The <i>service</i> is	Five-Year Maintenance and Service contract for Diesel Compressors (Mobile and Station Units) at Duvha Power Station as and when required .
11.2(14)	The following matters will be included in the Risk Register	Risks will be tabled in the risk register as they arise by both the Employer and Contractor • All matters notified on Early warnings, • All matters discussed during Risk reduction meetings
11.2(15)	The Service Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	3 Working Days, 24 Hours Emergencies
2	The Contractor's main responsibilities	Data required by this section of the core clauses is also provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data
21.1	The <i>Contractor</i> submits a first plan for acceptance within	2 weeks of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	01 March 2027 OR as soon as possible thereafter
30.1	The <i>service period</i> is	5 years
4	Testing and defects	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
5	Payment	
50.1	The <i>assessment interval</i> is	between the 25 th day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	Thirty (30) Calendar days after the signed assessment by both Parties and a valid Tax Invoice. ATTENTION: Eskom's standard policy on payment term for all contracts valued above R50 000 0000 (Fifty Million Rand), including VAT, is 60 days. Bidders are requested to bear this payment term in mind when submitting bids and concluding contracts.

51.4 The *interest rate* is the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and

6	Compensation events	All Compensation Events are to be managed as per core clause 6 of the NEC3 TSC
7	Use of Equipment Plant and Materials	To be managed as per core clause 7 of the NEC3 TSC
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	1. Natural disaster 2. Industrial action 3. Community Unrest
9	Termination	To be managed as per core clause 9 of the NEC3 TSC
10	Data for main Option clause	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the service at intervals no longer than	4 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i>	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the ICE-SA Division.
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	arbitration
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg South Africa
	The person or organisation who will	

	choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.		
12	Data for secondary Option clauses			
X1	Price adjustment for inflation	CPA will be applied 16 months after base date maturity		
X1.1	The <i>base date</i> for indices is The proportions used to calculate the Price Adjustment Factor are:	July 2026 proportion 0.33 0.40 0.12 0.15% 1.00	linked to index for Labour Materials Transport non-adjustable	Index prepared by SEIFSA C3 Actual Labour Costs (All hourly paid employees) SEIFSA D3 SEIFSA L2(B)
X2	Changes in the law	Becomes a Compensation Event only if the changes in the Law of the Republic of South Africa took place after the Contract Date.		
X17	Low service damages			
X17.1	The low service is R10 000 up to a maximum total of R100 000 over the contract period. R 5 000 up to a maximum total of R 100 000 over the contract period. Actual rectification cost or agreed damage amount R 30 000 for the first incident and R 50 000 for any consecutive incidents.	Emergency breakdown response where the team should be on site during call outs within 2 hours. Scheduled maintenance with 100% of the work completed within the planned window. Planned maintenance quality where there's repeat failure due to proven poor maintenance and workmanship within 30 days. For an environmental incident (section 30, violation or a contravention) due to proven poor maintenance.		
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R0.0 (zero Rand)		
X18.2	For any one event, the <i>Contractor's</i>	the amount of the deductibles relevant to the		

	liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	event.
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	The greater of - the total of the Prices at the Contract Date and - the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles
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	the total of the Prices other than for the additional excluded matters. The <i>Contractor's</i> total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for - Defects due to his design, plan and specification, - Defects due to manufacture and fabrication outside the Affected Property, - loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), - death of or injury to a person and infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	12 months after the end of the <i>service period</i> .
X19	Task Order	
X19.3	Delay Damages are	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
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	5 days of receiving the Task Order
Z	The additional conditions of contract are Z1 to Z16 always apply.	

Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

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

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

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Service.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Service Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the Affected Property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Affected Property;
 - warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of the *service*; and
 - undertakes, in and about the execution of the *service*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *service*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

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

- Z7.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

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

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

Z9 Employer's limitation of liability

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 The *Contractor's* entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

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

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

Z11 Ethics

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

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

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

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

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

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

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

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

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

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

Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

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

Insurance cover 83

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

INSURANCE TABLE A

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

Z13 Nuclear Liability

- Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 44 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 44 of 1999, or any

replacement section dealing with the same subject matter.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

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

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results

generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Z15 Security Clearance/ Criminal Checks

These clauses are not only, but are especially, applicable for accessing critical infrastructure in terms of the Critical Infrastructure Protection Act, 2019 (previously referred to as National Key Points), but may include other sites, and/or where persons are rendering a service or have given notice of intention to render a service to an organ of state, which service may (1) give him or her access to classified information and intelligence in the possession of the organ of state; or (2) give him or her access to or information concerning areas designated as critical infrastructure.

- Z15.1 The *Contractor* and its subcontractors implement risk and security management processes and measures to mitigate any threats against any premises, installations or sites, systems, or information of the *Employer* with only persons with criminal verification record security clearance certificates being given access after verification of these and identifying documents by the *Employer's* security system.

- Z15.2 The *Contractor* provides, at the *Contractor*'s cost, to the *Employer*, criminal verification record security clearance certificates for each person the *Contractor* or its subcontractors requires to access any premises, installations or sites, systems, or information of the *Employer*, with copies of their identifying documents, such as passports, before allowed such access by the *Employer*. The *Employer*'s refusal to allow access to premises, installations or site/s, systems or information is at the *Employer*'s sole discretion and is not a compensation event.
- Z15.3 The criminal verification record security clearance certificates provided are to have been issued by a service provider which is to be a reputable screening company accredited by the South African Police Services, are to be no older than four weeks since issue and valid for as long as each person is required to access premises, installations or sites, systems or information. The *Employer* may require updated certificates and identifying documents every 26 to 52 weeks, subject to safety and security concerns and the risk rating of the works or services undertaken and/or premises, installations or sites, systems or information.
- Z15.4 If any such criminal verification record security clearance certificates is cancelled, withdrawn, invalidated, amended, or expires, or a criminal conviction is noted against any person requiring access, even if an appeal against the criminal conviction has been noted, the *Service Manager* may instruct the *Contractor* to ensure that such person leaves the premises, installations or site/s and is blocked from systems and information and the giving of this instruction is not a compensation event.

Z16 Protection of Personal Information Act Compliance

- Z16.1 For the purposes of this clause, the terms "Data Subject" "Personal Information" "Processing" and "Regulator" and "Responsible Party" have the meanings given to them in the Protection of Personal Information Act, 2013 ("POPIA").
- Z16.2 Each Party acknowledges that it is an independent Responsible Party in relation to the Personal Information processed in terms of this contract ("Shared Personal Information") and that it determines the purposes for which and the manner in which the Shared Personal Information is, or is to be, processed.
- Z16.3 Each Party shall always comply with POPIA when performing its obligations under this contract and shall not perform any of their respective obligations under this contract in such a way as to cause the other Party to breach any of that other Party's obligations under POPIA.
- Z16.4 Each Party shall ensure that, in respect of all Shared Personal Information provided to the other Party and in respect of the use of that Shared Personal Information under this contract:-
- Z16.4.1 all necessary fair Processing notices have been provided to and consents obtained from Data Subjects by that Party, where required, in terms of POPIA, including to specify that the other Party is also a Responsible Party in respect of the Data Subject's Personal Information and to provide a link (for example, <https://www.eskom.co.za/about-eskom/website-terms-and-conditions/>) to the other Party's Privacy Statement or to include a statement that the other Party's Privacy Statement can be found on the other Party's corporate website; and
- Z16.4.2 all necessary steps have been taken to ensure that Shared Personal Information has been collected and processed in accordance with the principles set out in POPIA, including in particular those relating to:
- lawful, fair and transparent Processing;
 - specified, legitimate and explicit purposes of Processing; and
 - adequate, relevant and not excessive Processing.
- Z16.5 If either Party receives any complaint, notice or communication from the Regulator which relates directly to:
- Z16.5.1 the other Party's Processing of the Shared Personal Data; or
- Z16.5.2 a potential failure by the other Party to comply with POPIA in respect of the activities of the Parties under or in connection with this contract,
- it shall, to the extent permitted by law, promptly notify the other Party and provide such information as it shall reasonably request in that regard.
- Z16.6 If a Data Subject makes a written request to either Party to exercise any of their rights under POPIA, the receiving Party shall respond to that request in accordance with POPIA. To the extent the request concerns Processing of Shared Personal Information undertaken by the other Party, the receiving Party shall:
- Z16.6.1 promptly and without undue delay forward the request to the other Party; and
- Z16.6.2 cooperate and provide reasonable assistance in relation to that request to enable the other Party to respond in accordance with POPIA.
- Z16.7 Each Party acknowledges that the other Party may disclose Shared Personal Information to any Regulator or law enforcement authority with jurisdiction to request access to the Shared Personal Information.
- Z16.8 Neither Party discloses or otherwise makes available the Personal Information to any third party (including sub-contractors, but excluding its authorised employees who require access to such Personal Information strictly in order for the Parties to carry out their obligations pursuant to this contract), unless a Party has provided, to a requesting Party, its prior written consent to do so, and the requesting Party has submitted to the other Party (consenting Party), to its satisfaction, a copy of a written contract or undertaking that the requesting Party has entered into with a third party for the protection of Personal Information of the Data Subjects or unless there is an applicable exemption in terms of the law to process or further process the personal information.
- Z16.9 The requesting Party indemnifies and holds harmless the consenting Party and its staff, successors, cessionaries, delegates, and assigns, from any and all losses, costs, expenses and damage, as well as penalties and fines arising from the requesting Party's non-compliance with the provisions of any relevant legislation applicable to Personal Information or data protection, as well as damage to the consenting Party's reputation and costs of compliance as directed by the Regulator, including but not limited to publication of the data breach.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

[Instructions to the contract compiler: (delete this notes before issue to tenderers with an enquiry)

Whenever a cell is shaded in the left hand column it denotes this data is optional and would be required in relation to the option selected. In the event that the option is not required select and delete the whole row.]

Notes to a tendering contractor:

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

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 5391902 or www.ecs.co.za

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

Part 2: Pricing Data
TSC3 Option A

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

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

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

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

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

Function of the Price List

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

Link to the *Contractor's* plan

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

Preparing the *price list*

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

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

- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;

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

Format of the *price list*

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

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

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

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

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

C2.2 the *price list*

Schedule A : Core crew normal time

Item nr	Description	No.	Unit	Expected Quantity	Rate	Price
1.	Site Supervisor	1	Hr	10380		
2.	Quality Control Officer/Technician	1	Hr	10380		
3.	Fitters	2	Hr	10380		
4.	Trade Assistants	2	Hr	10380		
5.						
6.						
7.						
8.						

The total of the Prices

--

Schedule B: Other related Costs

Item nr	Description	No.	Unit	Expected Quantity	Rate	Price
1.	Health and Safety Costing (Provide Breakdown)	1	yearly	5		
2.	Transport	1	monthly	60		
3.	Consumables (cutting discs, drill bits, grease, rags etc)	1	monthly	60		
	Service interval A spares (Service Kit)					
4.	Oil filter 25 bar		EA	1 per service		
5.	Air filter cartridges (SET)		EA	2 per service		
6.	Filter element E9 KE (inlet)		EA	1 per service		
7.	Filter element 5 microns (secondary)		EA	1 per service		
8.	Return filter (high capacity)		EA	1 per service		
9.	O-ring 30 mm diameter and seals		EA	1 set per service		
	Service interval B spares (service					

	Kit)					
10.	Engine oil		Liters	100		
11.	Oil filter		EA	2 per service		
12.	Air filter cartridges		EA	4 per service		
13.	Damp filter		EA	1 per service		
14.	Cylinder head cover gasket		EA	6 per service		
15.	Fuel filter inserts		EA	2 per service		
16.	Fuel filters (complete)		EA	2 per service		
17.	Fuel water trap		EA	1 per service		
18.	V-belt ribbed		EA	1 per service		
19.	V-belt 4P 1375.16		EA	1 per service		
20.	Engine coolant		Liters	100		
21.	ELC extender		Liters	2		
22.	Distilled water		Liters	5		
23.	Thermostat		EA	1 per service		

The total of the Prices

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Schedule C: Overtime rates

Normal overtime:

Item nr	Description	No.	Unit	Normal overtime rate	Estimated hours	Price
1.	Site Supervisor	1	Hr		2400	
2.	Quality Control	1	Hr		2400	
3.	Safety Officer	1	Hr		120	
4.	Fitters	2	Hr		2400	
5.	Trade Assistants	2	Hr		2400	
6.						
7.						
8.						

9.						
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Sunday & Public Holidays rates:

Item nr	Description	No.	Unit	Sunday & PH rate	Estimated hours	Price
1.	Site Supervisor	1	Hr		1200	
2.	Quality Control	1	Hr		1200	
3.	Fitters	2	Hr		1200	
4.	Trade Assistants	2	Hr		1200	
5.						
6.						
7.						
8.						
9.						

The total of the Prices

--

Part 3: Scope of Work

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

C3.1: Employer's service Information

1. Description of the service

1.1 Executive overview

The service is the provision of a maintenance and service contractor to ensure safe, reliable, efficient, and cost-effective operation of five diesel compressor units (3 mobile + 2 station-mounted) at Duvha Power Station throughout the five-year contract period.

This scope of work defines comprehensive maintenance and support requirements for five diesel-driven screw air compressors installed at Duvha Power Station:

- Three (3) MOBILAIR M500-2 Mobile Units: Oil-free screw compressors, each rated 45 m³/min at 700 kPa(g), mounted on trailers for flexible deployment across multiple stations within Eskom's generation fleet
- Two (2) Sullivan Palatek Station Units: Oil-free screw compressors, each rated 45 Nm³/min at 700 kPa(g), permanently installed in LPS facility

The Contractor shall provide preventive maintenance, corrective maintenance, technical support, spare parts management, operator training, and performance monitoring over a five-year period

1.2 Employer's requirements for the service

- The *Contractor* provides a core crew that will be on site as and when required. During periods of increased workload the *Contractor* may be required to bring in additional resources for a certain period.
- The *Contractor* provides for standby personnel or afterhours work.
- The *Contractor* provides qualified labour to carry out the service.
- The *Contractor* provides tools, gear, equipment and consumables to carry out the work.
- The *Contractor* ensures the safety of own personnel, other contractors and Eskom employees in the vicinity of the works by complying with the OHS Act No.85 of 1993 and its Regulations.
- The *Contractor* plans and executes the work and provides a detailed plan for each task.
- The *Contractor* performs quality control on own work as per pre-approved quality control plans.
- The *Contractor* performs work within the specified period and to the acceptable quality standard.
- The *Contractor* will ensure all Safety Documentation is submitted before the contract is placed.
- The *Contractor* shall ensure that all Quality Control Documents are to be submitted before contract placement.
- The *Contractor* shall ensure that all the required equipment (including compressors and generators if required) for executing the job is included in his/her tender.
- The *Contractor* must mobilize within 2 weeks of contract placement.
- The *Contractor* must submit a program and quality control plan to the contracts manager before commencement of the job.

1.3 Core crew and standby arrangement

1.3.1 Core crew

The *service provider* provides a skilled maintenance crew that will be site based and the complement of the crew shall be maintained all year round.

Core crew:

1x Supervisor
1x QC Controller/Technician
2x Fitters
2x Trade Assistants

Overtime shall be approved by the Service *Manager* in writing prior to commencement of such overtime. Overtime hours shall be governed by the Basic Conditions of Employment Act.

1.3.2 Standby crew

It is expected from the *Service Provider* that a standby crew is available upon request to attend to emergencies that might arise during periods not covered by the normal working hours.

The *Service Provider* provides a daily standby crew comprising of the following skills to cover 24 hrs on a daily base:

Standby	Backup standby
1 x Supervisor/Technician	1 x Supervisor/Technician
2 x Artisans	2 x Artisans
2 x Assistants	2 x Assistants

The call-out response time will be 1 to 1, 5 hours from the time of call-out to being on site. The call-out hours will be based on the entering the Duvha Power Station gate and on completion of the work. Overtime hours shall be governed by the Basic Conditions of Employment Act.

1.4 The works consist of the repairs and maintenance of the following:

This Five-Year Maintenance and Service Contract establishes a comprehensive framework for the preventive, scheduled, and corrective maintenance of the Duvha Power Station diesel compressor fleet. The contract covers 5 compressor units (3 mobile KAESER MOBILAIR M500-2 and 2 stationary Sullivan Palatek systems), each powered by diesel engines. The service program integrates ISO 13372 condition monitoring standards, OEM-approved maintenance intervals (Interval A and B service schedules), and SANS/Eskom operational requirements to maximize equipment availability, extend asset life, and ensure regulatory compliance.

The maintenance program follows a Preventive-Corrective Model, combining:

- Preventive (Scheduled): Fixed-interval service based on OEM recommendations and operating experience
- Condition-Based: Oil analysis and vibration monitoring to extend intervals where appropriate
- Corrective (Reactive): Emergency repairs in response to failure or operational demand

Objective: Maintain ≥95% equipment availability while minimizing total cost of ownership.

1.1 Service Interval A – Preventive Maintenance (Interval A)

Frequency: Every 500 operating hours or 3 months (whichever occurs first)

Duration: 6–8 hours on-site

Consumable Replacements (Interval A)

Item	Quantity	Replacement Criteria
Oil Filter 25 bar	1 per service	Spin-on cartridge; visual inspection for bypass valve function
Air Filter Cartridges (SET)	2 sets	Washable or disposable; inspect for saturation and damage
Filter Element E9 KE (inlet)	1	Primary stage; replace if collapsed or bypass activated
Filter Element 5 µm (secondary)	1	Secondary stage; replace per differential pressure gauge
Return Filter (high-capacity)	1	Tank-top design; protect oil cleanliness
O-ring Ø30×2 & seals	As needed	Replace if damaged during service; use OEM specification

Fluid Checks & Analysis (Interval A)

Task	Method	Acceptance Criteria	Action
Oil Level Check	Dipstick/sight glass	Within 2 cm of full mark	Top up SIGMA FLUID G-680 (max 10 L per service)
Fluid Condition Analysis	ISO 4406 particle count	≤17/15/12 cleanliness code	If exceeded: increase filter frequency or flush system

TAN (Acid Number)	ASTM D2896	≤3.0 mg KOH/g	Replace fluid if >4.0 (oxidation degradation)
Viscosity @ 40°C	ASTM D445	100–110 cSt (±5%)	If outside range: oil replacement required
Water Content (Karl Fischer)	Karl Fischer titration	<500 ppm	If >1,000 ppm: drain and refill system
Metal Content	ICP atomic spectroscopy	Fe <50 ppm, Cu <5 ppm	Exceeding limits indicates wear; investigate source

Lab Report Submission: Within 5 working days of service completion

Component Servicing (Interval A)

Valve Group Service:

- Inlet valve DN250: Service with maintenance kit (replacement o-rings, spring, seat)
- Combination/Thermostat valve 60°C: Revision kit; test for proper closure/opening
- Check valve G1/2: Inspect for leakage; replace seal set if required
- Non-return valve: Replace seals if bypass detected
- Solenoid valves (2× G1/4 2/2-W, 1× G1/2 3/2-W): Test 24V DC operation; replace coil if open circuit

Control System:

- Proportional valve: Service with maintenance kit; adjust differential pressure per specification
- Temperature regulator: Verify setpoint (60°C ±3°C); replace bulb if erratic response
- Overflow valve Rp1: Service with maintenance kit; pressure-test at 1.1× setpoint

Cooling & Auxiliaries:

- Ventilator axial (24V DC): Lubricate bearings; test rotation speed; replace if stalled
- Sinter filter G1 1/2: Flush with compressed air; replace element if bypass detected

Pressure Test Points:

- Oil pressure @ 1,500 RPM: 5–8 bar (normal)
- Air discharge pressure: 8 bar ±0.5 bar
- Temperature @ outlet: 60–65°C (thermostat control)

1.2 Service Interval B – Extended Maintenance (Interval B)

Frequency: Every 2000 operating hours or 6 months (whichever occurs first)

Includes: All Interval A tasks PLUS major component servicing

Duration: 10–12 hours on-site (2 technicians; may require 2 days for stationary units)

Engine Component Service (Interval B)

Component	Service Task	Materials	Notes
Engine Oil	Drain and refill	5× 20 L containers Caterpillar DELO 400 (15W-40)	Total ~60 L for full sump capacity
Oil Filter	Replace (2 per service)	2× oil filter cartridges (25 bar)	Standard replacement schedule
Air Filter Cartridges	Complete set replacement	4 cartridges (2 sets)	Washable type: clean before replacement
Damp-Filter	Replace	1× damp-filter element	Pre-filter stage; prevents moisture ingress
SOS Oil Analysis	Comprehensive condition analysis	Lab testing kit	Extended element analysis (particle count, elemental analysis)
Cylinder Head Cover	Inspect & replace gasket	Gasket + seals	Visual inspection for oil seepage
Turbocharger Oil	Change if separate system	5 L high-temperature oil	Inspect for excessive carbon buildup

Fuel System Service (Interval B)

Component	Action	Materials	Criteria
Fuel Filter Insert	Replace	2× fuel filter cartridges	Replace if water detected or differential pressure high

Fuel Filter (complete)	Replace complete unit	2× spin-on fuel filters	Preventive replacement every 6 months
Fuel Water Trap	Replace water trap insert	1× water trap cartridge	Prevents fuel contamination from condensation
Fuel System Inspection	Visual inspection for leaks	N/A	Check fuel lines, hose clamps, pump condition

Drive Belt & Coupling (Interval B)

Component	Inspection	Action	Replacement Criteria
V-ribbed Belt BX 1397	Visual & tension check	Adjust tension or replace	If cracked, frayed, or slipping
V-belt 4P 1375.16	Measure deflection (10–15 mm)	Retension or replace	If deflection exceeds 20 mm or visible wear
Coupling Alignment	Check with dial indicator	Adjust or replace	Radial run-out <0.05 mm acceptable
Belt Guard Condition	Inspect for damage	Repair or replace	Critical safety component

Belt Tension Measurement: Check with tension gauge; typical range 10–15 mm deflection under hand pressure.

Cooling System Service (Interval B)

System	Service	Materials	Specification
Coolant Drain & Refill	Flush cooling circuit	5× 20 L containers Extended-Life Coolant (ELC)	Complete system flush; refill with fresh ELC
ELC Extender Addition	Add corrosion inhibitor	2× 1 L ELC extender	Maintains protection for additional 12 months
Distilled Water Top-up	Demineralized water	1× 5 L distilled water	Use only distilled water (no tap water)
Radiator Cleaning	Pressure wash & inspect	N/A	Remove debris, leaves, insects from fins
Thermostat Test	Function test @ 60°C	Replacement thermostat (if failed)	Must maintain ±3°C tolerance
Water Hose Inspection	Visual check for cracks	Replacement hose kit (if needed)	Replace if brittle or leaking
Heater Hose (Water Jacket)	Inspect & test operation	Replacement hose assembly	Essential for winter start-up capability

Coolant Temperature Set point: 60°C ±3°C normal; alarm at ≥70°C.

Sensor & Control System (Interval B)

Component	Test	Method	Pass Criteria
Proximity Switch 1S	Continuity & function	Digital multi-meter	0 Ω when activated; ∞ when deactivated
Temperature Transducer	Accuracy check	Thermocouple comparison	±2°C of reference
Pressure Transducer	Calibration verification	Pressure gauge comparison	±0.5 bar of reference
Fuel Level Sensor	Functional test	Visual fuel tank level	Linear response across range

1.3 MATERIALS, LUBRICANTS & CONSUMABLES

Engine Lubricants

Primary Engine Oil – Caterpillar DELO 400 (15W-40 ULSD)

Specification	Value	Verification Method
Grade	SAE 15W-40	SAE J183 classification
OEM Spec	Caterpillar ECF-3, API CI-4	Manufacturer certification
Container	20 L sealed metal canister	Standard Eskom supply
Viscosity @ 40°C	100–110 cSt	ASTM D445 test
Viscosity @ 100°C	12.5–14.5 cSt	Fluidity at engine operating temperature
Pour Point	≤ -20°C	Cold-start capability (winter)

Flash Point	220–240°C	Fire safety specification (ASTM D92)
Density @ 15°C	0.87–0.89 g/cm ³	ASTM D1298
TBN (Total Base Number)	≥ 10 mg KOH/g	Acid neutralization capacity (ASTM D2896)
Viscosity Index	≥ 95	Temperature stability (ASTM D2270)
Sulfated Ash	≤ 1.5% w/w	Additive package level (ASTM D874)
Copper Corrosion	≤ 3a	Bearing material protection (ASTM D130)
Water Separation	≥ 30 min	Demulsibility (ASTM D1401)
Oxidation Stability	≥ 500 min @ 100°C	Oil life expectancy (ASTM D2272 TOST)

Compressor Oil – SIGMA FLUID G-680

Parameter	Specification	Purpose
Oil Type	Mineral petroleum base	Compressor-specific formulation
Viscosity Grade	ISO VG 46 (46 cSt @ 40°C)	Optimized for screw compressor
Container	10 L sealed canister	Standard service unit
Flash Point	>200°C	Fire safety (ASTM D92)
Pour Point	<-20°C	Cold-start performance
Oxidation Stability	≥1,000 hours (ASTM D2272)	Extended oil change intervals
Water Separation	≥100 minutes	Demulsibility for water removal
Supplier	KAESER OEM or equivalent	Proprietary formulation recommended
Shelf Life	3 years unopened	Store in cool, dry location
Annual Consumption	~30 L per unit (3–4 10 L canisters)	Based on 2× Interval A services + 1× Interval B

Hydraulic Oil – TELLUS S2 VX46

Parameter	Specification	Application
Type	Premium anti-wear hydraulic oil	Auxiliary control systems
Viscosity	ISO VG 46 (46 cSt @ 40°C)	Optimized for 24V solenoid systems
Container	20 L sealed drum	Bulk service unit
Antiwear Additive	Zinc-based (ZDDP)	Wear protection for proportional valve spools
Flash Point	>180°C	Fire safety specification
Oxidation Stability	≥1,000 hours	Extended fluid life
Water Separation	≥30 minutes	Protects servo components
Annual Consumption	~50 L per unit	Top-up per service check
Supplier	Shell or equivalent OEM-approved	Use only premium grade

Coolant – Extended-Life Coolant (ELC) & Additives

Parameter	Specification	Notes
Type	Glycol-based extended-life coolant	Orange or green type (check OEM spec)
Container	20 L sealed canister	Bulk supply for system flush
Freeze Protection	-38°C (typical)	South African winter requirement
Boil Protection	+104°C	Maintains seal integrity at operating temp
TDS (Total Dissolved Solids)	<500 ppm	Indicates coolant degradation
pH Range	8.5–9.5	Neutral to slightly alkaline
Corrosion Protection	≥2,000 hours (ASTM D1384)	Multi-metal protection
Extended Life Additive	2× 1 L bottles per annual service	Maintains inhibitor levels
Annual Requirement	5× 20 L (100 L full system flush)	Plus 2× 1 L ELC extender per unit
System Capacity	~60–80 L (Caterpillar C18 radiator + hoses)	Complete system refill requirement

Filters & Filter Elements

Oil Filters

Filter Type	Specification	Replacement Interval	Supplier
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Oil Filter 25 bar (Engine)	Spin-on cartridge; bypass valve 3.5 bar	Every Interval A service	Caterpillar/KAESER OEM
Oil Filter 25 bar (Compressor)	High-capacity spin-on; 5 µm absolute	Every Interval A service	KAESER OEM
Return Filter (Tank-Top)	Tank-mounted; 10 µm absolute	Every Interval A service	KAESER OEM

Air Filters

Filter Type	Application	Replacement Criteria	Notes
Primary Air Filter (E9 KE)	Engine inlet stage	Every Interval A or 250 hours	KAESER standard; washable design
Secondary Air Filter (5 µm)	Compressor inlet (2-stage)	Every Interval A or 250 hours	Disposable cartridge; replace if bypass activated
Engine Air Filter Set	CAT C18 inlet (2-stage set)	Every Interval B or 500 hours	4 cartridges per set; Tier 2 compatible
Damp-Filter	Turbocharged engine pre-filter	Every Interval B or 500 hours	Prevents moisture carryover

Fuel Filters

Filter Type	Service	Replacement Interval
Fuel Filter Cartridge	EN 590 ULSD fuel	Every Interval B (6 months)
Fuel Filter (Complete Unit)	Water/sediment trap	Every Interval B (6 months)
Fuel Water Trap Insert	Separates water from diesel	Every Interval B (6 months)

Seals, Gaskets & O-Rings

Component	Quantity	Specification	Purpose
O-ring Ø30×2	12 per unit	Viton (high-temp resistant)	Valve stem seals
Gasket Sets	1 per unit (complete kit)	Mixed materials (cork, PTFE, rubber)	Engine, cooler, intake manifold
Engine Head Gasket	1 (emergency stock)	OEM specification	Catastrophic failure replacement only
Seal Set (Non-return Valve)	4 per unit	Viton/FKM blend	Solenoid valve servicing
Solenoid Valve Replacement Coil	2 per unit	24V DC rated	Emergency backup stock

1.5 Interpretation and terminology

The following abbreviations are used in this Services Information:

Abbreviation	Explanation
BMCR	Boiler Maximum Continuous Rating
ISO	International Standards Organisation.
AKZ	Kraftwerk Kenn zeichen System.
KPI	Key Performance Indicator.
NEC	New Engineering Contract.
ORHVS	Operating Regulations for High Voltage Systems.
PCLF	Planned Capability Loss Factor.
PJFFP	Pulse Jet Fabric Filter Plant
PPE	Personal Protective Equipment.
PSR	Plant Safety Regulations.
QCP	Quality Control Plan
QMP	Quality Management Program.
SOW	Scope of Work.

Abbreviation	Explanation
UCF	Unit Capability Factor.
UCLF	Unplanned Capability Loss Factor.

1.6 Specifications

Title	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
Occupational Health and Safety Act 85 of 1993 and its regulations		✓
Basic Conditions of Employment Act		✓
Safety, Health and Environmental Specifications for Contractors (SAS 0012)	Rev 8 or latest revision	Available from the service manager
Generation Plant Safety Regulations (240-150642762)		Available from the service manager
Work in Confined Spaces (SAP0006)	Rev 8 or latest revision	Available from the service manager
Hot Work Instruction (HMP0014)	Rev 8 or latest revision	Available from the service manager
Impairment Of Fire Protection, equipment & Detection System (SAI0047)	Rev 7 or latest revision	Available from the service manager
Criteria for environmental monitoring of work (SAI 0082)	Latest revision	Available from the service manager
<u>Technical specifications:</u>		
Supplier Quality Management Specification (QM58/ 240-105658000)		Available from the service manager
Quality procedure MGM0001		Available from the service manager
Hydrocarbons management Work instruction (ENVP0030)	Rev 1 or the latest revision	Available from the service manager
Work Instrucion for Waste Management (ENVP 005)	Rev 7 or the latest revision	Available from the service manager

2 Management strategy and start up

2.1 The *Contractor's* plan for the service

2.2 Management meetings

Title and purpose	Approximate time & interval	Location	Attendance by:
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Contract Monthly meeting	Monthly	Duvha Power Station	<i>Employer and Contractor</i>

2.3 Contractor's management, supervision and key people

The contractor shall provide a site manager or a project manager to supervise, monitor, control and co-ordinate all activities during the execution of this contract.

2.4 Minimum requirements of people employed

The following key people must meet the minimum requirements tabled under each designation

Supervisor

- Apprentice trained with a trade test/ National Diploma in Mechanical Engineering
- Supervisory training/qualification
- Safety training
- Minimum three years post apprenticeship experience
- Prioritise and allocate work
- Monitor progress and report progress
- Perform first line quality control

Quality Controller Officer

- Trade Test or National Diploma in Mechanical Engineering
- Minimum three years experience
- Understanding of drawings and specifications
- Liaise with site management and supervision on all quality tools for effective maintenance
- Raising of quality inspection/control documentation and non-conformance reports, effecting, tracking and closing including filing of such.
- Provide advice in respect to plant problems and possible solutions.
- Assist with recommissioning of plant and perform tests and inspections as required.
- Preparing and completion of quality control plans
- Develop and compile task lists and BOM's
- Ensuring compliance to the Eskom Supplier Quality Management Specification (QM 58) and Duvha P/S Maintenance Quality Procedure MGM0001
- Perform plant inspections, identify defects and initiate corrective actions including closing of such defects.

Artisans

- Apprentice trained with a trade test and minimum of 3 years relevant experience.

2.5 Documentation control

- All procedures, work instructions, forms and all contractual communications must be controlled for the duration of the contract.
- The following will appear on all controlled documentation as a title page, page header or page footer:
 - Title
 - Document Unique identifier
 - Revision number, original documents will be noted as revision 0. All subsequent revisions will be number sequentially (1, 2, 3, 4....)
 - Revision Date
 - Date when document was last changed. This date will change with each revision.
 - Effective Date
 - Date when document first came into use. This date will not change as the document is revised.
- All contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself.
- Inspections reports to be compiled and submitted within two weeks.
- Data package after all the work has been finished to be submitted within one week after the repairs.
- On completion of the contract all documents, records and files relating to the project/contract need to be submitted to the *Service Manager* for record keeping.

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 Eskom Holdings Limited's VAT (4740101508) and Company Registration Number (2002/015527/06). The tax invoice shall be saved in PDF and sent to invoiceseskomlocal@mp2rc110.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)

2.7 Records of Defined Cost to be kept by the *Contractor*

The *Contractor* keeps accurate and complete books of accounts, records and other evidence relating to the Actual Cost. Records and accounts must reflect all work done on the contract. These are open to audit. All documentation is kept by the *Contractor* for a period of three years following Completion of this contract. This information must be kept up to date at all times.

The *Contractor* may be requested to submit to the delegated *Service Manager* proof of costs incurred, which may include the following:

- the number and grading of employees within the Working Areas
- the number and grading of employees outside the Working Areas

- copies of their daily time cards
- cost allocation
- payroll registers
- Schedule of Equipment and time sheets, and
- Any other information the delegated *Project Manager* reasonably requires.

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

2.8.1 Equipment

None.

2.8.2 Information and other things

All records, data books, inspection reports etc relating to the *Works*.

2.9 Management of work done by Task Order

The *Service Manager* issues a Task Order to the *Contractor* which specifies clearly the work to be provided, additional specifications and procedures and any other constraints the *Contractor* complies with in providing the *Works*. The Task Order is issued before the *Contractor* Provides the Work.

The *Service Manager* issues Task Orders to the *Contractor* in a timely manner that allows the *Contractor* to properly plan the work within the time periods stated on the *Task Order*.

The *Service Manager* issues to the *Contractor* any information relative to the *Employer's* need and circumstance surrounding forecast future work required from the *Contractor*. This information allows the *Contractor* to provide staff in a cost effective and efficient manner.

Emergency work

The *Service Manager* may issue a verbal instruction to the *Contractor* to undertake emergency work. This verbal instruction is confirmed in writing within 5 days from when the instruction is issued.

3. Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The *Contractor's* personnel is to undergo Safety Induction Training at Duvha prior to commencement of this contract and all the relevant Documentation is to be approved by Safety Officials and the Project Manager before any activities can be started on site.

- The Contractor shall comply with the health and safety requirements contained in SAS0012: Duvha Power Station Contractors safety manual (latest revision obtainable from the Service Manager)
- The documents are completed by the *Contractor's* and submitted to the *Employer* before taking possession of the works.
- These documents are valid for the duration of the works.
- The *Contractor* and all his personnel attend a Health and Safety Induction Course prior to starting with the *works*.
- The induction course is presented by the Safety Risk Department at Duvha Power Station.
- The *Contractor* makes arrangements with Safety Risk Management at telephone number 013-690-0143.
- The *Contractor* submits all the documents as indicated in the Safety, Health & Environmental Specifications relevant to the work to Safety Risk Management before the induction course.

- Training and Competency Records with regard to the skills he uses to carry out the *works* or any other works in the *Employers* premises.
- Compensation Commissioner records and proof of registration.
- Records and documentation with regard to any sub-contractor or labour-only contracts he places or uses to carry out the *works* or any other works in *Employers* premises.
- Personal Protective Equipment and Safety Equipment Inspection, training and competency records and documentation.
- Employment contracts for all sub-contractor or labour-only contracts.
- Compliance to a Safety System, such as NOSA or any other system that is similar in nature.
- Records of all incidents or accidents, and vehicle accidents, incurred during execution of this *works* or any other works in the *Employers* premises.
- Records of all man-hours, including sub-contractors or labour-only contracts, the *Contractor* spends on the *Employers* premises.
- Written Safe Work Procedures for all hazardous tasks the *Contractor* executes on the *Employers* premises.
- A Fall Protection Plan for all elevated work the *Contractor* does on the *Employers* premises.
- Environmental Plan and awareness training.
- Induction training records of his staff by himself/herself.
- Minimum wage compliance for the different skills and to which Bargaining Council compliance is made to and proof of membership, if any.
- Risk Assessment of this type of works
- Proof of authorisation/accreditation from Department of Labour and or other Statutory Body for this type of works, if applicable
- Emergency Evacuation and Rescue Plan for the hazardous tasks related to the works.

3.2 Environmental constraints and management

- A Project specific Environmental Management Plan – focusing on identifying only project specific environmental risks and their mitigation measures (as per scope of work)
- An Emergency Preparedness and Reaction Plan for Chemical Spillages
- Training for the handling of hazardous substances
- The *Contractor* shall comply with the environmental criteria and constraints stated in Annexure ENVP 0016: Procedure for environmental handling of waste including redundant and obsolete equipment.
- Refuse Disposal
- The *Employer* will provide special colour coded bins for refuse disposal. The *Employer* will empty these bins.
- The *Contractor* ensures that all workers under his control strictly adhere to the correct use of refuse bins:
 - Maroon bins: - Scrap metal only
 - White bins: - Lugging and general household rubbish
 - Yellow bins: - Ash, dust, coal dust and sand
- For the full duration of the *Works*, the *Contractor* is responsible to keep the work area clean of any rubble, and to place all refuse into the bins provided

3.3 Quality assurance requirements

- All work is carried out under the supervision of an experienced supervisor.
- The *Contractor* complies with the *Employer's* Quality Requirements as specified in Eskom Supplier Quality Management Specification (QM58) and the Duvha P/S Maintenance Quality Procedure MGM0001.
- The *Contractor*, when using materials that require compliance with a standard specification. The *Contractor* shall, if so ordered, furnish the Engineer with certificates showing that the material/s do comply.
- Where specified, materials shall bear the official mark of the appropriate standard.

4. Plant and Materials

4.1 Specifications

The contractor shall adhere to the following standards listed below:

- OHSA: Occupational Health and Safety Act: Act 85 of 1993.
- GGSS 0423: Low Pressure Valves.
- 36-775: Control of Plant Construction, Repair and Maintenance Welding Activities
- BS EN 13480: Metallic Industrial Piping Standard
- DIN EN ISO 15614: Piping Standard (WPQR)
- DIN EN ISO 15609: Piping Standard (WPS)
- DIN EN ISO 9606: Piping Standard (WQ)
- 36-505 Personnel and Entities Performing Welding Related Special Processes on the Employer Plant
- 32-631 Eskom approval of personnel performing quality related special processes on Eskom Plant
- SANS 1123:2011 Pipe Flanges

4.2 Plant & Materials provided “free issue” by the *Employer*

- a) The *Employer* will provide power supply, water and land for the storage of equipment and material.
- b) The *Employer* will supply all the necessary material required to execute the *Works*. Once these are handed over to the *Contractor*, the *Contractor* is responsible for ensuring safeguarding of these.
- c) Should the *Contractor* need to use of any of the *Employer's* Equipment, including compressed air, electricity, water supply and mobilr crane, it must be specified by the *Contractor*. The *Employer* does not guarantee continuity of supply of any of these items.

4.3 Contractor's Equipment

The Contractor must supply all tools and equipment that are needed for the entire contract period.

5. Working on the Affected Property

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

- a) The contractor applies for access permits for all works exceeding four (4) weeks via the Project Manager, who will co-ordinate this.
- b) The *Contractor* applies for *Contractor's* Permits for all his employees and/or subcontractors at the Security gate, at least 24 hours prior to entry of the Duvha Power Station Security Area.
- c) The *Contractor* completes the specific form in the Duvha Power Station Contractors Safety Manual, listing all of the personnel that he intends using on site.
- d) The completed list, identified with the *Contractor's* name, contains the following information:
 - *Employee Name*
 - *Employee ID Number*
 - *Eskom Safety Co-ordinator signature*
 - *Eskom Project Manager signature*
 - *Validity Date*
- e) No permits are issued to personnel who have not attended safety induction.
- f) The *Contractor* photocopies the first page of the ID book of every one of his employees; reduced to the size 65%.
- g) This completed list, together with the photocopies of the ID books is delivered to Protective Services for the preparation of the *Contractor's* Permits.

- h) The *Contractor* allows at least 24 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices.
- i) The *Contractor's* personnel are required to be in possession of a *Contractor's* Permit at all times inside Duvha Power Station.
- j) All *Contractors'* permits are submitted back to Protective Services when the workers leave the site after completion of the *works*. Failure to return the permits will result in a R25,00 penalty for each non returned permit.
- k) The *Contractor* compiles detailed Tool Lists (obtainable from Protective Services) of all tools and equipment to be taken on site before arriving at the power station.
- l) Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site.
- m) The *Contractor's* visitors and all personnel conform to the security arrangements that are in force at Duvha Power Station.
- n) Application forms for visitors are filled in by the *Contractor's* Site Manager and approved by the *Project Manager*, and submitted to the *Employer's* Protective Services office one day prior to the visit.
- o) Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.
- p) The Chief Security Officer may, with valid cause, remove any of the *Contractor's* personnel from site, either temporarily or permanently. He may deny access to the site to any person whom, in the opinion of the said Chief Security Officer, constitutes a security risk.
- q) No unauthorised vehicles will be allowed on site. Only *Contractor's* vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications are directed to the *Project Manager* for consideration and approval.
- r) The *Contractor* is restricted to the Site. The *Contractor* is forbidden to enter any other areas, and ensures that his employees abide by these regulations.
- s) Parking inside the power station is strictly forbidden, except for loading purposes.
- t) No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate.
- u) Security personnel may search any premises, property or person within the security area of Duvha Power Station
- v) No Photographic equipment will be allowed within the security area of the Power Station without obtaining permission.
- w) Application forms for such permission is available from the Protective Services offices.
- x) Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act

5.2 People restrictions, hours of work, conduct and records

The *Contractor* personnel to work the same working hours as Eskom personnel which are: Mondays to Thursday's 7:00 – 16:15, and Fridays 07:00 – 12:00 and the lunch break is 12:00 – 12:30.

The labour is supplied for 173 hours per month. The *Contractor* must ensure availability of personnel for standby and call outs when required during the weekends and or after normal working hours. During callout, hours will start counting from entering Duvha site when living side.

It is very important that the *Contractor* keeps records of his people working 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 Equipment provided by the *Employer*

- The *Employer* allows the *Contractor* to use Overhead Cranes and Hoists, provided the *Contractor's* employee is an authorised Lifting Machine operator.
- The *Employer* provides scaffolding, the request shall be made through the Service manager or his/her representative.

- Should the Contractor require using any of the Employer's Equipment, including compressed air, electricity, water supply and crane, it must be specified by the Contractor during the kick off meeting. The Employer does not guarantee continuity of supply of any of these items.
- The Employer shall be entitled to withdraw use of the said Equipment, should proper maintenance and cleanliness not be ensured. In that event, the *Contractor* shall be obliged to provide the necessary Equipment at his own cost.
- The *Contractor* is responsible for the repair, replacement or correction as necessary of all pieces of tools and equipment supplied by the *Employer* which are damaged and / or lost whilst in the *Contractor's* custody and control.
- The *Contractor* site manager must ensure that any one of his employees or Sub-*Contractor*, operating hoist equipment belonging to the *Employer*, is authorised by an Accredited Company and retraining is done annually. Arrangements for training courses can be made via Duvha Power Station Maintenance Training but the *Contractor* will absorb costs.
- A copy of this accredited and valid training certificate must be given to the *Employer's Supervisor*, who will then arrange access for usage.

5.4 Site services and facilities

- a) Potable Water Supply
 - Potable water is available at the existing points.
- b) Electrical Power Supply
 - Power is available at the existing points.
 - The Contractor provides his own portable 380V electrical distribution boards, and supply cables to and from the boards, for all his power supply requirements to execute the works.
 - Contractors' Electrical Distribution Boards complies with OHS Act as referred to in the Electrical Installation Regulations and the Electrical Machinery Regulations.
 - Each board brought onto site must have a Certificate of Compliance issued by an accredited person.
 - The Contractors' electrical distribution boards are installed at the works on a time negotiated with the project manager, prior to the possession date.
 - The Employer connects distribution boards to a 380V three-phase AC power supply, only after the Contractor has submitted the valid Certificate of Compliance.
 - All Contractors' Electrical Distribution Boards are earthed to the steel structure of the plant.
- c) Toilet Facilities
 - The Contractor provides ablution facilities for its personnel.
- d) Catering Facilities
 - The Contractor are not allowed to use the Employer's dining facilities, unless a specific agreement has been made between the Contractor and Eskom Catering and Accommodation Services (ECAS).
 - The Contractor may buy take away meals from the fast foods outlet on Site.
- e) Medical Facilities
 - The *Contractor* provides a First Aid service to his employees and subcontractors. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer's* Medical Centre and facilities will be available.
 - Outside the *Employer's* office hours, the *Employer's* First Aid Services are only available for serious injuries and life threatening situations.
 - The *Employer* recovers the costs incurred, in the use of the above *Employer's* facilities, from the *Contractor*

5.6 Employer's Site entry and security control, permits, and Site regulations

5.6.1 Restrictions to access on Site, roads, walkways and barricades

- a) Pedestrian crossings are marked on the power station roads and should be used.
- b) Walkways are clearly marked on the Power Station and should be used when walking to keep safe on any object that might fall.

- c) Barricades are provided where there are open trenches and around the sumps and manholes.
- d) The contractor shall occupy only such ground as is necessary to carry out the works.
- e) All fences and other structure that have been damaged or interfered with by the contractor shall be restored to be in a condition at least equivalent to their original condition.

5.6.2 Plant Safety Regulations

- a) The LAR is for the person in charge of the plant to maintain control over activities taking place on his plant that are not covered by the Plant Safety Regulation and Operating Regulations for High Voltage Systems.
- b) Activities that are allowed to be carried out under the LAR must not require a permit and must satisfy the following criteria:
 - i) They must not involve danger to the person carrying out the activity
 - ii) No plant isolations must be required
 - iii) The activity must be performed by a skilled person and there must be no risk of a production loss
 - iv) The duration of the activity must be less than 24 hours
 - v) The Authorised Supervisor accompanies the Contractor during the first instances of working under a LAR on a specific plant area.
- c) It is very important that the person who plans to do an activity on a plant under the LAR informs the person in charge of the plant (WTP Controller on the panel or SPO at WTP) of what will be done. This means verbally telling the person in charge of the plant what will be done and not just signing the LAR book. The LAR book must also be signed.
- d) It is also important that as soon as the activity is completed the person, who was doing the activity, notify (verbally) the person in charge of the plant that conditions are back to normal and that the LAR has been signed off. Signing the LAR book silently without notifying the person in charge of the plant is not sufficient.
- e) For more information please refer to Plant Safety Regulation C11.
- f) The Contractor is required to have as a minimum 80% of its site personell authorised as Responsible Persons/Authorised supervisor/s as per the Eskom's Plant Safety Regulations.

5.6.3 Provided by the *Contractor*

The contractor should provide facilities they deem necessary in executing the work. This must be discussed with the Project Manager prior to commencement of work.

5.6.4 Tests and inspections

- The *Contractor* shall conduct performance test after installation in the presence of the Service Manager or his/her representative according to the QCP, the end user's and functional requirements.
- All work must be inspected and approved by the system engineer and project manager before it may be covered up.

5.7 List of drawings

None