

a



NEC3 Engineering & Construction Contract

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

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

for **Duvha Power Station South Cooling Water (CW) Pumps Control System PLC Upgrade**

Contents:	No of pages
Part C1 Agreements & Contract Data	[•]
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CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:	No of pages
C1.1 Form of Offer and Acceptance	[•]
[to be inserted from Returnable Documents at award stage]	
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]	
C1.3 Proforma Guarantees	[•]

C1.1 Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter a contract for the procurement of: **Duvha Power Station Cooling Water Pumps Control System PLC Upgrade**

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

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

Options A	The offered total of the Prices exclusive of VAT is	
	Sub total	
	Value Added Tax @ 15% is	
	The offered total of the amount due inclusive of VAT is ¹	
	(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 (if applicable)

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: Works Information
- Part C4 Site Information

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

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

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

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

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the
Employer**

.....
*(Insert name and address of
organisation)*

Name & signature of witness	Date
.....

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

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

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

C1.2a ECC3 Contract Data

Part one - Data provided by the Employer

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

Clause	Statement	Data
1	General	
	<p>The <i>conditions of contract</i> are the core clauses and the clauses for main Option</p> <div style="background-color: #cccccc; width: 100px; height: 30px; margin-bottom: 10px;"></div> <p>dispute resolution Option</p> <p>and secondary Options</p> <div style="background-color: #cccccc; width: 100px; height: 150px; margin-top: 20px;"></div>	<p>A: Priced contract with activity schedule</p> <p>W1: Dispute resolution procedure</p> <p>X2: Changes in the law</p> <p>X5: Sectional Completion</p> <p>X7: Delay damages</p> <p>X15: Limitation of Contractor’s liability for design to reasonable skill and care</p> <p>X16: Retention</p> <p>X18: Limitation of liability</p> <p>Z: Additional conditions of contract</p>
	<p>of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)</p>	
10.1	<p>The <i>Employer</i> is (Name):</p> <p>Address</p>	<p>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</p> <p>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</p>
10.1	<p>The <i>Project Manager</i> is:</p>	<p>Takalani Mudonde</p>

	Address	P O BOX 2199 Witbank 1035
	Tel	27 13 680 3127
	Fax	N/A
	e-mail	NetshiTI@eskom.co.za
10.1	The <i>Supervisor</i> is:	Mapule Mogashoa
	Address	P O BOX 2199 Witbank 1035
	Tel No.	013 690 0283
	Fax No.	N/A
	e-mail	mogashmc@eskom.co.za
11.2(13)	The <i>works</i> are	Cooling Water Pumps Control System PLC Upgrade
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> • Unavailability of key design documentation for the existing system. • High noise exposure • Permit to work (No Authorised RP required) • Covid-19 • Community Unrest • Electric Shock • Labour strike
11.2(15)	The <i>boundaries of the site</i> are	Duvha Power Station North and South CW Pump house & Outside Plant Control Room
11.2(16)	The Site Information is in	Part 4: Site Information
11.2(19)	The Works 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	Two Working days

2 The Contractor's main responsibilities Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.

3 Time

11.2(3)	The <i>completion date</i> for the whole of the works is	2027/11/04 (12 months)	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met	key date
		1. Submit the method statement	Three weeks after contract award
		2. Submit QCP for approval	Four weeks after contract award
		3. Submit program for approval	Two week after contract award
		4. Submit safety file for approval	Two weeks after project kick off meeting
		5. Completion of all activities including commissioning	A per the approved Baseline programme
30.1	The <i>access dates</i> are:	Part of the Site	Date
		1 CW south side (unit 1,2&3)	Immediately after safety file approval
31.1	The Contractor is to submit a first programme for acceptance within	Two weeks after contract award.	
31.2	The <i>starting date</i> is	2026/11/05 or as soon as possible	
32.2	The Contractor submits revised programmes at intervals no longer than	Two weeks	
35.1	The Employer is not willing to take over the works before the Completion Date.	Employer will only take over after successful commissioning per unit	

4 Testing and Defects

42.2	The <i>defects date</i> is	52 weeks after Completion of the a specific unit or completion of whole works.
43.2	The <i>defect correction period</i> is	Two working days for planning and to define the timelines to repair. Defect correction period will be agreed by the parties based on the complexity of the defect.

5 Payment

50.1	The <i>assessment interval</i> is	On the 25th of every monthly
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	Four weeks
51.4	The <i>interest rate</i> is	<p>(i) Zero percentage above the publicly quoted prime rate of interest (calculated on a 365-day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.</p>

6 Compensation events

60.1(13)	The place where weather is to be recorded is:	Duvha Power Station
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The *weather measurements* to be recorded for each calendar month are,

The cumulative rainfall (mm)

The number of days with rainfall more than 10 mm

The number of days with minimum air temperature less than 0 degrees Celsius

The number of days with snow lying at 09:00 hours South African Time

and these measurements:

The *weather measurements* are supplied by

The Project manager or the system Engineer on request.

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:

Duvha Power Station

and which are available from:

The South African Weather Bureau and included in Annexure A to this Contract Data provided by the Employer

60.1(13)	Assumed values for the ten-year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	<p>As stated in Annexure A to this Contract Data provided by the Employer.</p> <p>Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.</p>
7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	<p>1. The Employer will not make payment if the invoice of the contractor does not correspond with the price assessed by project manager on the payment certificate.</p> <p>2. Excessive access to side</p> <p>3. Dishonesty in incidence reporting</p>
9	Termination	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.

10 Data for main Option clause

A	Priced contract with activity schedule	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
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11 Data for Option W1

W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
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Address		[•]
Tel No.		[•]
Fax No.		[•]
e-mail		[•]

W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.
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W1.4(2)	The <i>tribunal</i> is:	arbitration.
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W1.4(5)	The <i>arbitration procedure</i> is	The latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	South Africa
	The person or organisation who will choose an arbitrator	
	<ul style="list-style-type: none"> - 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			
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X5	Sectional Completion			
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> are:	Section	Description	Completion date
		1	Detail design	Two months after contract award or As per accepted baseline programme submitted by the supplier, whichever comes first
		2	Manufacturing Lead time	Three months after design acceptance or as per accepted baseline programme submitted by the supplier, whichever comes first
		4	Installation at CW south side (unit 1,2&3)	6 months after manufacturing or as per accepted baseline programme submitted by the supplier, whichever comes first
X5 & X7	Sectional Completion and delay damages used together	R20 000 per day for the delay of completion for each section as stipulated in X5.1 , up to a maximum of 10% of the contract value. All delay will Not exceed the cap of 10% of the contract value.		
X7.1	Delay damages for late	section	Description	Amount per day
X5.1	Completion of the sections of the works are:	1	Detail design	R20 000 per day for the delay of completion as per sectional completion targeted date

		2	Manufacturing Lead time	R20 000 per day for the delay of completion as per sectional completion targeted date
		3	Installation	R20 000 per day for the delay as per sectional completion targeted date
X15	Limitation of the Contractor's liability for his design to reasonable skill & care	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X16	Retention (not used with Option F)			
X16.1	The <i>retention free amount</i> is	0%		
	The <i>retention percentage</i> is	10% of the contract value.		
X18	Limitation of liability			
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.0 (zero Rand)		
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	the amount of the deductibles relevant to the event		
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date. 		
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 excluded matters, is limited to:	the total of the Prices other than for the additional excluded matters. The Contractor's total liability for the additional excluded matters is not limited.		

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

- Defects due to his design which arise before the Defects Certificate is issued,
- Defects due to manufacture and fabrication outside the Site,
- loss of or damage to property (other than the *works, Plant and Materials*),
- death of or injury to a person and
- infringement of an intellectual property right.

X18.5 The end of liability date is

(i) Seven years after the *defects date* for latent Defects and

(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.

A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period.

If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.

Z The *Additional conditions of contract* are

Z1 to Z15 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 *Project 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 *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 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 *Project 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 *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project 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 *Project Manager*, the *Supervisor*, 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 *works*. 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 Site;
 - 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 *works*; and
 - undertakes, in and about the execution of the *works*, 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 *works*, 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 *Project 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 Works 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 from the last sentence in core clause 61.3, "unless the *Project Manager* should have notified the event to the *Contractor* but did not".

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 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

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

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

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

- Z11.1 If the amount due for the *Contractor's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Contractor's* obligation to Provide the Works using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table.

Z12 Ethics

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

- Affected Party** means, as the context requires, any party, irrespective of whether it is the *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 Subcontractor or the Subcontractor's employees,
- Corrupt Action** means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
- Fraudulent Action** means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
- Obstructive Action** means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
- Prohibited Action** means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

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

Z12.2 The *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.

Z12.3 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.

Z12.4 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.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

84.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.

84.2 The *Contractor* provides the insurances stated in the Insurance Table A.

84.3 The insurances provide cover for events which are at the *Contractor's* risk 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 to the <i>works</i> , Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insuranc The <i>Employer's</i> policy deductible, at Contract Date, where covered b the <i>Employer's</i> insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract	<u>Loss of or damage to property</u> <u>Employer's property</u> The replacement cost where not covered by the <i>Employer's</i> insuranc The <i>Employer's</i> policy deductible, at Contract Date, where covered b the <i>Employer's</i> insurance

	<p><u>Other property</u> The replacement cost</p> <p><u>Bodily injury to or death of a person</u> The amount required by applicable law</p>
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 13.2

Replace core clause 87 with the following:

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 of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 Nuclear Liability

Z14.1 The *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.

Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any

liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

- Z14.3 Subject to clause Z14.4 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*.
- Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

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

- Z15.1 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.
- Z15.2 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 Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z15.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z15.5 The *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.
- Z15.6 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.
- Z15.7 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.

Z16 Corporate Social Investment

Eskom is proposing that the contractor spend at least 2% of the contract value to fund a Corporate Social Investment project as a direct beneficiation of the Local to site communities. The execution must happen within the contract execution duration. This will forms part of this contract obligation.

Annexure A: One-in-ten-year-return *weather data* obtained from SA Weather Bureau for [weather station]

If any one of these *weather measurements* recorded within a calendar month, before the Completion Date for the whole of the *works* and at the place stated in this Contract Data is shown to be more adverse than the amount stated below then the *Contractor* may notify a compensation event.

	<i>Weather measurement</i>				
Month	Cumulative rainfall (mm)	Number of days with rain more than 10mm	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT	[Other measurements if applicable]
January	[•]	[•]	[•]	[•]	
February	[•]	[•]	[•]	[•]	
March	[•]	[•]	[•]	[•]	
April	[•]	[•]	[•]	[•]	
May	[•]	[•]	[•]	[•]	
June	[•]	[•]	[•]	[•]	
July	[•]	[•]	[•]	[•]	
August	[•]	[•]	[•]	[•]	
September	[•]	[•]	[•]	[•]	
October	[•]	[•]	[•]	[•]	
November	[•]	[•]	[•]	[•]	
December	[•]	[•]	[•]	[•]	

Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
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.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	% %
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications:	

² Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

	<p>Experience:</p> <p>2 Name:</p> <p>Job</p> <p>Responsibilities:</p> <p>Qualifications:</p> <p>Experience:</p>	<p>CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .</p>
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	
11.2(14)	The following matters will be included in the Risk Register	
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:	
31.1	The programme identified in the Contract Data is	
A	Priced contract with activity schedule	
11.2(20)	The <i>activity schedule</i> is in	
11.2(30)	The tendered total of the Prices is	<p>(in figures)</p> <p>(in words), excluding VAT</p>
	Data for Schedules of Cost Components	<p><i>Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).</i></p>
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components

PART 2: PRICING DATA

ECC3 Option A

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

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, (ECC3) Option A states:

Identified and defined terms 11

11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering contractor as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

Function of the Activity Schedule

Clause 54.1 in Option A states: "Information in the Activity Schedule is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

Link to the programme

Clause 31.4 states that "The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering contractor will develop a high level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

Preparing the *activity schedule*

Generally, it is the tendering contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

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 his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor*:

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works 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 activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

An activity schedule could have the following format:

C2.2 the activity schedule

Activity Schedule Bill- PLC UPGRADE SYSTEM - Duvha PS-SOUTH PUMP		UOM	QTY	Rates	Amount
1. Preliminaries and Generals					
1.1	Site establishment	Sum	1		
1.2	Site de-establishment	Sum	1		
1.3	SHEQ requirement	Sum	1		
1.4	Travelling	Sum	1		
1.5	Allow for supervision of works during construction	Sum	1		
1.6	Time Related P&Gs	Sum	1		
1.7	RP during project execution as per 240-150642762 Generation Plant Safety Regulations (new)	Sum	1		
2. Alterations					
2.1	Safely remove/relocate the existing equipment where required by new designs	Sum	1		
2.2	Decommission of existing system	Sum	1		
3. DETAILED ENGINEERING DESIGN					
3.1	Duvha Cooling Water (CW) Pumps control system S7 1500 PLC.	Sum	1		
3.2	Connection of the Simatic s7 1500 PLC to the marshalling S7-400PLC	Sum	1		
3.3	Electrical System - 24 V DC Redundant system (batteries, chargers & cabinets)	Sum	1		
4. Procurement, Installation, labelling, Site Integration Test (SIT) and commissioning					
4.1	Supply and install CW Pumps S7 1500 PLC control system and network communication to marshalling S7 - 400PLC	No	6		
4.2	Supply and installation Touch Panel (SIMATIC HMI Comfort)including mounting, cabling and ect.	No	6		
4.3	Supply and Install Sump levels transmitter and probes	No	6		
4.4	Supply and install CW pumps bearings CW flow meters.	No	6		
4.5	Supply and install 24V DC Dual redundant battery chargers	No	1		
4.6	Supply and Installation Electrical distribution boards	No	1		

4.7	Cabling, circuit breakers, isolators and other accessories required for completing the Works.	Sum	1		
4.8	Plant and labelling of equipment supplied by the Water Cooling Plant	Sum	1		
4.9	Supply and install Programming units	Sum	1		
5.Factory Acceptance Test(FAT)					
5.1	C&I System - S7 1500 PLC and network communication	Sum	1		
5.2	Electrical System - 24 V Battery & chargers	Sum	1		
6.Technical handover Documentation, Software's and certificates					
6.1	C&I System - S7 1500 PLC and network communication, level transmitter, flow meter, electronic equipment	Sum	1		
6.2	Electrical System - 24 V Battery chargers, electrical equipment	Sum	1		
7 TRAINING, LICENSING AND COMMISSIONING					
7.1	C&I System - S7 1500 PLC and communication network(Engineering, Maintenance & Operating)	Sum	1		
7.2	Electrical System - 24 V DC Redundant system(batteries, chargers & cabinets) for Engineering, Maintenance & Operating	Sum	1		
7.3	Commissioning	Sum	1		
					Sub-Total
					VAT
					TOTAL INCL VAT

Use this page as a cover page to the *Contractor's activity schedule*.

PART 3: SCOPE OF WORK

Refer to the following attached document: 382-171295 DUVHA POWER STATION COOLING WATER (CW) PUMPS CONTROL SYSTEM PLC UPGRADE TECHNICAL SPECIFICATION.

PART 4: SITE INFORMATION

Document reference	Title	No of pages
	This cover page	1
C4	Site Information	
	Total number of pages	

PART 4: SITE INFORMATION

1. WORK AND THINGS PROVIDED BY THE EMPLOYER FOR THE WORKS

1.1 Site services

All work will be executed on site at CW North and south Pump house, at Duvha Power station.

1.2 Potable Water Supply

Potable water is available at the existing points.

1.3 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 OHSA as referred to in the Electrical Installation Regulations and the Electrical Machinery Regulations.
- Each board brought onto site has 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 Supervisor, 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.

1.4 Toilet Facilities

The Employer provides the Contractor access to existing toilet facilities.

The supplier to provide additional portable toilets where applicable as part of site establishment. Supplier to maintain the facility for the duration of the contract. The facility shall comply to Eskom SHEQ procedures.

1.5 Catering Facilities

- The Contractor are not allowed to use the Employer's dining facilities,
- The Contractor may buy take away meals from the fast foods outlet on Site.

1.6 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.

1.7 Refuse Disposal

- The Employer provides colour coded bins for refuse disposal.
- The Employer empties these bins.
- Contractor keeps the work area clean of any rubble, and to place all refuse into the bins provided.
- 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: - Lagging and general household rubbish
- Yellow bins: - Ash, dust, coal dust and sand

1.8 Title to site materials

The Contractor has no title to any site materials.

1.9 Completion

Completion and Use of the Works

- In terms of Core Clause 35.3, the Employer may use any part of the works before Completion, for commissioning purposes.
- Completion is when the Contractor has Provided the Works with no Defects.

2. Project Management

The Contractor submits a programme within 1 week of the Contract Date. The programme indicates the following:

- the hour duration of each activity,
- the working calendar (number of work hours per day, days per week),
- the exact quantity of people per day
- The shifts (if applicable)
- All phases and interfaces

3. Environmental management

Environmental requirements

The Contractor ensures that all goods, services or works supplied in terms of the Contract conform to all applicable environmental legislation.

4. Refuse Disposal

- The Contractor is responsible to keep the work area clean of any rubble.
- ii. All waste introduced and/or produced on the Employer's premises by the Contractor for this contract, is handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref: ISBN0621 - 16296-5.

5. Health and Safety

5.1 Safety Risk Management

- The Contractor complies with the requirements of the Duvha Power Station Safety, Health & Environmental Specifications SAS 0012.
- 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.

- The Contractor completes all appointments required and ensures that the appointee and appointees fully understand their responsibilities and are competent and trained to execute their duties.
- The appointees/appointee ensures that all duties are carried out and records are kept by the Contractor for review/audit by the Employer or Inspector of Machinery.
- Duvha Safety Risk Management has the right and authority to visit and inspect the Contractor's work place or Site establishment.
- The Contractor supplies and ensures that his employees wear the necessary PPE according to the risk assessments performed on the specific tasks to be carried out.
- The Contractor ensures that everyone entering Duvha Power Station under his supervision are medically, physically and psychologically fit to enter Duvha Power Station.
- The medical examination, at the Contractor's cost, is carried out by a Registered Professional Occupational Health Practitioner and the examination shall include the following tests:
 - Eye Test, Blood Pressure,
 - Heart Function,
 - Hearing Test and
 - Lung Function.
- A thorough examination is done and previous physical injuries, as well as occupational diseases/complications are covered.
- If at any point in time during the execution of the works, the Contractor has a radiation-related incident/exposure, the onus is on the Contractor to immediately notify the Employer, the Medical Station, the Risk Manager and the Safety Risk Management Department.
- The onus thereafter is for the Contractor to immediately arrange, at his/her cost, for blood samples to be taken by a Registered Laboratory and for this sample to be sent to the Excellerator Laboratory in Cape Town for full radiation exposure tests. This test results are then to be discussed with the Duvha Occupational Health Practitioners, who will then advise the Power Station Management on the risk, if any, of the incident/exposure.
- The Contractor takes full responsibility and accountability for all other people/staff/personnel/labour that he/she employs or utilises, whether in full-time/part-time/contract basis, in executing the works or other work whilst on the Employers premises.
- The Contractor ensures that Safety Harnesses are used for all work carried out in elevated positions, as defined in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations.
- All safety equipment or Machinery used complies with the SANS Codes of Quality and Practice or any Code as stipulated in the Occupational Health and Safety Act, No 85 of 1993, and any amendments thereto.
- The Contractor at all times consider himself as "Employer" as defined in the Occupational Health and Safety Act, No 85 of 1993 and do not consider himself as under supervision or management of the Employer with regard to Health and Safety Requirements but only from a Commercial Contractual Condition of Contract. Under no circumstances does the Contractor consider himself a sub-ordinate or being given supervision.
- The Contractor provides and maintains his own facilities as required in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations, if not agreed contractually or arranged by the Employer.
- The Contractor has Safety Systems in place at his premises for the total contract period and these shall include the following:
 - Safety Management Structure and Compliance to these
 - Statutory Appointments
 - Records and documentation of all Risk and Hazard Analyses.
 - Planned Job Observations Records and Documents.
 - Employment history and records of all personnel, part-time or full-time or contract labour.
 - Medical History of all personnel, part-time or full-time or contract labour
 - Training and Competency Records with regard to Safety, Health and Environment.

- 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.

5.2 Specific Risks

The following risks are identified by the Employer and Contractor specifically addresses these risks to ensure that the works is carried out safely:

- **Unavailability of key design documentation for the existing system.**
- **High noise exposure**
- **Outage movement (Unit 4-6 are outage dependent)**
- **Permit to work (No Authorised RP required)**
- **Covid-19**
- **Community Unrest**
- **Electric Shock**
- **Labour strike**

5.3 Plant Safety Regulations

- The Employer, on request from the Contractor, isolates required plant from all sources of danger as described in the Plant Safety Regulations.
- The Project Manager, on request, makes available a copy of the latest revision of the Plant Safety Regulations available to the Contractor.
- The Contractor conforms to all rules and regulations applicable to plant safety and completes the Workman's Register prior to working on the plant.
- The Contractor declares any grinding and welding to be carried out on the workers register.
- At every permit change the Contractor withdraws himself/herself/his staff for that period of permit suspension/revocation and thereafter only proceeds with the works after signing onto the new permit.

- The Contractor ensures that he/she/all sub-contractors/personnel/staff/his visitors are medically, physically and psychologically fit to enter the Duvha Power Station, and specifically any confined space.
- The Contractor is prohibited from entering Radiation Areas.
- The onus is on the Contractor to ensure that the correct confined space requirements and tests have been done/met by the Employer prior to entry into any confined space or hazardous plant areas.
- The Contractor ensures that all personnel are competent to carry out the works.
- Proof of competency for technical and safety aspects must be available as and when required on site.

5.4 Limited Access Register (LAR)

- 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.
- Activities that are allowed to be carried out under the LAR must not require a permit and must satisfy the following criteria:
 - They must not involve danger to the person carrying out the activity;
 - No plant isolations must be required;
 - The activity must be performed by a skilled person and there must be no risk of a production loss;
 - The duration of the activity must be less than 24 hours
 - The Supervisor accompanies the Contractor during the first instances of working under a LAR on a specific plant area.
- 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 (ASS on the panel or PPO 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 is also signed.
- 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. Just signing the LAR book is not sufficient.
- **For more information please refer to Plant Safety Regulation C11.**

5.5 Fire precautions

- Any tampering with the Employer's fire equipment is strictly forbidden.
- All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards must be kept free of obstruction, and not be used for work or storage at any time. Fire fighting equipment remains accessible at all times.
- In case of a fire, report the location and extent of the fire to the Electrical Operating Desk at extension 2222 or 7911.
- Take the necessary action to safe guard the area to prevent injury and spreading of the fire.
- 5.6 Reporting of accidents
- The Employer follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents.
- The Contractor is expected to fully co-operate to achieve this objective.
- The Project Manager is informed immediately of any Category B or C incidents. Category A incidents and any damage to property or equipment must be reported to the Supervisor within 24 hours.
- Radiation incidents must be reported immediately.
- In reporting Category C and D incidents, the Contractor submits the following documents, or any additional as required by the Employers investigation team.

- Proof of Contract of Employment.
- Proof of WCL notification to Department of Labour.
- Proof of Medical Doctors Note/Certificate detailing nature of injury and period of rest.
- Death Certificate, if Category C fatality.
 - Risk and Hazard Analysis, if not in place prior to injury.
 - Written Safe Working Procedure, if not in place prior to injury.

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

5.7 Occupational Health and Safety Act 1993 - SECTION 37

The Contractor and Employer agrees to the arrangements and procedures between them to ensure compliance by the main Contractor (as the mandatory) with the provisions of Section 37.2 of the Occupational Health and Safety Act, No 85 of 1993.

- The Contractor complies with the Occupational Health and Safety Act, 1993, and all Regulations made hereunder;
- The Contractor complies with all Eskom Safety and Operating Procedure
- The Contractor acknowledges that he is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who received sufficient safety training to ensure that they can comply therewith.
- The Contractor undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.
- The Contractor appoints a person who liaises with the Eskom Safety Officer responsible for the premises relevant to the Contract.
- The person so appointed on request:
- Supplies the Eskom Safety Officer with copies of minutes of all Health and Safety Committee meetings, whenever he is required to do so;
- Supplies the Eskom Safety Officer with copies of all appointments in respect of employees employed on this Contract, in terms of the Act and Regulations and notifies the Eskom Safety Officer of any changes thereto.
- Eskom may, at any stage during the currency of this agreement, be entitled to:
- do safety audits at the Contractor's premises, its work-places and its employees;
- refuse any employee, Subcontractor or agent of the Contractor access to its premises if such person has been found to commit any unsafe act or any unsafe working practice or is found to be not authorised or qualified in terms of the Act;
- issue the Contractor with a work stop order or a compliance order should Eskom become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 1993 and all Regulations made there under as well as all Eskom Safety and Operating Procedures.
- No extension of time will be allowed, as a result of any action taken by Eskom in terms of the foregoing Clause and the Contractor has no claim against Eskom as a result thereof.

5.8 Hazardous Substances

It is required in terms of the General Administrative Regulation (Regulation 7) that any Manufacture, Importer, Seller or Supplier of hazardous chemical substance supplies the receiver, free of charge, with sufficient information for the user.

5.9 Radiation protection

The Contractor conforms to Duvha procedure HMS0002 when performing any industrial radiography.

5.10 Thermal insulation containing asbestos

- The Contractor does not disturb any thermal insulating material on the plant until it has been positively identified as not containing asbestos. Approval is obtained from the Supervisor before any thermal insulation is disturbed.
- All stripping of asbestos material is undertaken strictly in accordance with the Employer's Standard, SAP 0022, available from Safety Risk Management.
- The Project Manager advises the Contractor whether areas that are to be stripped of lagging have been identified as containing asbestos.
- The Contractor is obliged to ascertain from the Project Manager in advance whether areas required to be stripped, are non-asbestos. Any contractor, other than the contractor appointed to remove asbestos strips no lagging material containing asbestos fibres.
- The Contractor appointed to remove asbestos, does not begin removal without first obtaining the necessary permission from the Deputy Director of Labour and the Project Manager.

5.11 Barricading and screens

- The Contractor provides and installs barricades and warning devices to ensure that equipment and persons are not exposed to danger or to prevent access to dangerous areas.
- Additional to barricading, the Contractor installs screening, such as black plastic, on the roadside to keep dust away from the road. This is in the interest of transport safety.
- All welding, flame cutting and grinding work is prohibited inside and directly outside the fabric filter plant area. All such work is done on ground level.
- All gratings are covered with adequate protective screening when welding or flame cutting in the vicinity.

5.12 Housekeeping

The Contractors equipment does not impair the operation of the plant or access to the plant.

5.13 Vehicle Safety

- No driver may disregard road signs, drive recklessly, exceed the speed limit, exceed the alcohol limit, or do anything contrary to the National Road Traffic Act while on Eskom business.
- No driver may drive a vehicle while holding a cellular or mobile telephone or radio in one or both hands or with any other part of the body. A cellular or mobile telephone or radio equipment may only be used while driving if such telephone or radio device is fitted with a hands-free device, otherwise it must be switched off.
- All drivers including contractor and contractor employees, when performing work for Eskom, must ensure that they and their passengers remain seated and wear seatbelts at all times.
- No employee may be transported in the back of an open vehicle.
- No driver should park a car in such a way that it will be a hazard to other road users.
- No driver may use a vehicle without being authorised.
- No employee is allowed to drive any Eskom-owned or scheme vehicle if not in possession of a valid national driver's licence as well as an Eskom driver permit.

5.14 Security arrangements

- 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.
- 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.
- 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
- No permits are issued to personnel who have not attended safety induction.
- The Contractor photocopies the first page of the ID book of every one of his employees; reduced to the size 65%.
- This completed list, together with the photocopies of the ID books is delivered to Protective Services for the preparation of the Contractor's Permits.
- The Contractor allows at least 24 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices.
- The Contractor's personnel are required to be in possession of a Contractor's Permit at all times inside Duvha Power Station.
- All Contractors' permits are submitted back to Protective Services when the workers leave the site after completion of the works. Failure return the permits will result in a R20,00 penalty for each non returned permit.
- 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.
- Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site.
- The Contractor's visitors and all personnel conform to the security arrangements in force at Duvha Power Station.
- 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.
- Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.
- The Chief Security Officer may, with valid cause, remove any of the Contractor's personnel from the 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.
- 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.
- 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.
- Parking inside the power station is strictly forbidden, except for loading purposes.
- No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate.
- Security personnel may search any premises, property or person within the security area of Duvha Power Station
- No Photographic equipment will be allowed within the security area of the Power Station without obtaining permission.
- Application forms for such permission is available from the Protective Services offices.
- Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act.
- No vehicle with a vehicle mounted two-way radio will be allowed on site. These vehicles will be denied access, since these radios interfere with plant systems and merely switching the radio off, will not be allowed.

5.15 Criminal Clearance/Checks For Contractors Accessing Power Stations (Nkp)

“Acceptance of this tender is subject to the condition that both the contracting company's management and its employees will provide Eskom with a clear criminal record not older than thirty (30) days from a reputable screening company. If the principal contractor appoints a subcontractor, the same provisions and measures will apply to the subcontractor. Acceptance of the tender is also subject to the condition

that the contractor will implement all such security measures for the safe performance of the work as required in the scope of the contract

Contractors are to submit proof of verification record(s) (Security clearance) from SAPS or accredited supplier linked to SAPS AFIS system not older than thirty (30) days, as part of Risk Management process in order to curb any threats against the Installation. It is compulsory for these documents to be submitted to Security for verification before access to site is granted. Only individuals with clear criminal records will be considered

6. General Requirements

6.1 General

- The Contractor provides all craneage and Equipment that is required to complete the works.
- The Contractor performs all hoisting and lifting, by qualified riggers.
- The Contractor checks and verifies correctness of civil work installed by others prior to commencement of installation / erection.
- The Contractor's Equipment does not impair the operation or access to the plant.
- The Contractor uses solid barricading for any barricading.
- The Contractor provides of all or any temporary or expendable materials required for the storage of material.
- The Contractor safeguards and secures all items whilst in the Contractor's custody and control, until completion of the whole of the works.
- All cutting of pressure parts is done with pneumatic grinders only.

7. Phasing and Interfaces

- Specify any and all phases and interfaces.
- The Contractor makes provision for other contractors who may be working in the same area.

8. Lighting and Ventilation

The Contractor supplies all lighting and ventilation required for the works.

9. Existing plant, foundations and buildings

- The adjacent plant and equipment may not be modified without written permission from the Project Manager.
- Modification in this sense includes, but is not limited to the following:
 - Welding onto existing plant
 - Cutting into existing pipe work

12. Quality

- 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 Generation Standard QM58.
- All quality control documentation is submitted to the Project Manager within 7 days of Contract date.