NEC3 Engineering & Construction Contract

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

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

for **Public address system total upgrade project**

Contents:		**No of pages**
Part C1	**Agreements & Contract Data**	**[●]**
Part C2	**Pricing Data**	**[●]**
Part C3	**Scope of Work**	**[●]**
Part C4	**Site Information**	**[●]**

CONTRACT No. **[……...]**

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 *Employer*	[●]
C1.2b	Contract Data provided by the *Contractor*	[●]
	[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 into a contract for the procurement of:

Public Address System Total 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	**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: .....

(Insert name and address of organisation)

Name & signature of witness ..... 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		

Part one - Data provided by the *Employer*

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)

1. Please read the relevant clauses in the conditions of contract before you enter data. 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.

1. Some ECC3 options are always selected by Eskom Holdings SOC Ltd. The remaining ECC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row. Where the following symbol is used "**[●]" -** data is required to be inserted relevant to the specific option selected.]

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

Clause	Statement	Data	
1	**General**		
	The *conditions of contract* are the core clauses and the clauses for main Option		
		A:	**Priced contract with activity schedule**
	dispute resolution Option	**W1:**	**Dispute resolution procedure**
	and secondary Options		
		X1:	**Price adjustment for inflation**
		X2	**Changes in the law**
		X5:	**Sectional Completion**
		X7:	**Delay damages**
		X16:	**Retention**
		X17:	**Low performance damages**
		X18:	**Limitation of liability**
		Z:	***Additional conditions of contract***
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)		
10.1	The *Employer* 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**	

10.2	The *Project Manager* is: (Name)	**[•]**
	Address	**[•]**
	Tel	**[•]**
	Fax	**[•]**
	e-mail	**[•]**
10.3	The *Supervisor* is: (Name)	**[•]**
	Address	**[•]**
	Tel No.	**[•]**
	Fax No.	**[•]**
	e-mail	**[•]**
11.2(13)	The *works* are	**Public Address System Total upgrade**
11.2(14)	The following matters will be included in the Risk Register	**See Risk Management in Part 3**
11.2(15)	The *boundaries of the site* are	**Areas associated with the scope of work to be performed are listed in *works* information**
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 *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**03 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 *completion date* for the whole of the *works* is	**2028/03/31**

11.2(9)	The *key date*s and the *condition*s to be met are:	***Condition* to be met**		***key date***
		1	**Site establishment**	**As per accepted program**
		2	**Delivery of material**	**As per accepted program**
		3	**Design approval**	**As per**

		4	**Execution**	**accepted program As per accepted program**
30.1	The *access dates* are:	**Part of the Site**		**Date**
		1	**Matla public address**	**2026/06/01**
31.1	The *Contractor* is to submit a first programme for acceptance within	**01 weeks of the Contract Date.**		
31.2	The *starting date* is	**2026/06/15**		
32.2	The *Contractor* submits revised programmes at intervals no longer than	**02 weeks.**		
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	**The takeover will be at the end of every section**		
4	**Testing and Defects**			
42.2	The *defects date* is	**52 weeks after Completion of the whole of the *works*.**		
43.2	The *defect correction period* is	**03 days**		
	except that the *defect correction period* for	**TBC**		
	and the *defect correction period* for	**TBC**		
5	**Payment**			
50.1	The *assessment interval* is	**between the 25th day of each successive month.**		
51.1	The *currency of this contract* is the	**South African Rand.**		
51.2	The period within which payments are made is	**05 weeks.**		
51.4	The *interest rate* is	**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** **(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6**		

		months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.
6	**Compensation events**	
60.1(13)	The place where weather is to be recorded is:	**Matla power station**
	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	**Matla power station**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	
	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 *weather data* for each *weather measurement* for each calendar month are:	**As stated in Annexure A to this Contract Data provided by the *Employer*.** **Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.**
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 *Employer*'s risks	**1. Delayed deliveries** **2. Community unrest** **3. Dust exposure** **4. Working at heights**
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.**
11	**Data for Option W1**	
W1.1	The *Adjudicator* 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).**
	Address	**[●]**
	Tel No.	**[●]**
	Fax No.	**[●]**
	e-mail	**[●]**
W1.2(3)	The *Adjudicator nominating body* 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.**
W1.4(2)	The *tribunal* is:	**arbitration.**
W1.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**[●] South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**
12	**Data for secondary Option clauses**	
X1	**Price adjustment for inflation**	
X1.1(a)	The *base date* for indices is	**2026/02/24**
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	**proportion** / **linked to index for** / **Index prepared by** **0. [●]** / **[●]** / **[●]** **0. [●]** / **[●]** / **[●]** **0. [●]** / **[●]** / **[●]** **0. [●]** / **[●]** / **[●]**

		0. [●]	**[●]**	**[●]**
		[●]	**non-adjustable**	
	Total	**1.00**		

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 *completion date* for each *section* of the *works* is:	***Section***	**Description**	***Completion date***
		1	**[●]**	**[●]**
		2	**[●]**	**[●]**
		3	**[●]**	**[●]**
X5 & X6	**Sectional Completion and bonus for early Completion used together**			
X6.1 X5.1	The bonuses for early Completion of the *sections* of the *works* are:	***section***	**Description**	**Amount per day**
		1	**[●]**	**R[●]**
		2	**[●]**	**R[●]**
		3	**[●]**	**R[●]**
	Remainder of the *works*			**R[●]**
X5 & X7	**Sectional Completion and delay damages used together**			
X7.1 X5.1	Delay damages for late Completion of the *section*s of the *works* are:	***section***	**Description**	**Amount per day**
		1	**[●]**	**R[●]**
		2	**[●]**	**R[●]**
		3	**[●]**	**R[●]**
	Remainder of the *works*			**R[●]**
	The total delay damages payable by the *Contractor* does not exceed:	**R [●]**		
X7	**Delay damages (but not if Option X5 is also used)**			
X7.1	Delay damages for Completion of the whole of the *works* are	**R[●] per day up to a limit of R[●]**		
X16	**Retention (not used with Option F)**			
X16.1	The *retention free amount* is	**R[●].**		
	The *retention percentage* is	**[●]%**		

X18	Limitation of liability	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**R0.0 (zero Rand)**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	**the amount of the deductibles relevant to the event**
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	**The greater of** • **the total of the Prices at the Contract Date and** • **the amounts excluded and unrecoverable from the *Employer*'s 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 *Contractor*'s total liability to the *Employer* 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) [Two] 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 minim limit of indemnity
Loss of or damage to the *works*, Plant and Materials	The replacement cost where not covered by the *Employer*'s insuranc The *Employer*'s policy deductible, as Contract Date, where covered by the

	Employer's insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract	**Loss of or damage to property** *Employer*'s property The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible, as at Contract Date, where covered by the *Employer*'s insurance Other property The replacement cost **Bodily injury to or death of a person** The amount required by applicable law
Liability for death of or bodily injury to employees of the *Contractor* 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 l 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 *Employer*'s 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.

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.

	Weather measurement				
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*

[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. If not required select and delete the whole row, otherwise insert the required Data.]

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.

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

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(8)	The *direct fee percentage* is The *subcontracted fee percentage* is	**%** **%**
11.2(18)	The *working areas* are the Site and	
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications:	

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

	Experience:	**CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .**
11.2(3)	The *completion date* for the whole of the *works* is	
11.2(14)	The following matters will be included in the Risk Register	
11.2(19)	The Works Information for the *Contractor*'s design is in:	
31.1	The programme identified in the Contract Data is	
A	**Priced contract with activity schedule**	
11.2(20) 11.2(30)	The *activity schedule* is in The tendered total of the Prices is	**(in figures)** **(in words), excluding VAT**
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 *activity schedule*	

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:

Item No.	**Activity description**	**Quantity**	**Rate**	**Price**

C2.2 the *activity schedule*

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

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	*Employer*'s Works Information	
C3.2	*Contractor*'s Works Information	
	Total number of pages	

C3.1: EMPLOYER'S WORKS INFORMATION

Reference No: **MEC-05770**	Reference Rev No: 2		

	SCOPE OF WORK DESCRIPTION / ACTIVITY	PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION	HOLD POINTS, WITNESS, REPORTS	RESPONSIBLE PARTY
1.1	Safety	• All work is to be done in accordance with Matla plant procedures and safety regulations. (GGR 0992). • Matla power station induction must be done before any work commences. • Permit to work must be in place before any work commences. • Worker's register must be completed and daily risk assessment conducted before any work commences.	Eskom to witness.	Contractor
1.2	Environmental Management. .	• All activities listed in the National Environmental Act 107 of 1998, EIA Regulation 982,983,984 & 985(2014), must have **AUTHORISATION** before commencement of work. • The contractor shall comply with all applicable legal and other requirements. • The polluter pays principle will be applied.	Eskom to witness.	Contractor

		• The contractor manager shall ensure compliance with Eskom Matla Environmental procedures to ensure the prevention of pollution (OMOP 4090). • The last payment will be processed based on the status of the last housekeeping check sheet (Annexure G: OMOP 4018) of designated area. EMS file based on ISO14001 will be required.		
1.3	Quality Management	• The contractor/executioner of work will be responsible for drawing up all QCP documentation and this must be approved by engineering and authorised by the Quality Department before commencing with the work. • Contractors/executioner to adhere to QM 58 and OMOP4497 requirements • Number of NCR issued can affect your next tendering process. • The QCP shall be signed progressively by the Engineer/Supervisor, Eskom QC Inspector, Contractor QC Inspector and/or AIA. • No procuring of outage items without the approval of scopes by quality • All outage scopes creep and scopes addition should be approved by quality • No contractor should be in the possession of scopes for execution without the scopes approved by quality • The contractor is subjected to quality auditing at any point in time during execution of scope	Hold point	Contractor

1.4	Matla Power Station induction is to be completed before any work commences.	Matla Power Station plant procedures and safety regulations.	Eskom to witness.	Contractor
1.5	A project plan must be submitted for evaluation and approval before any work is started.	The project plan must include a complete breakdown of the implementation plan.	Eskom to evaluate and approve before any work starts.	Contractor
1.6	QCP documentation requirements	• The con tractor will be responsible for drawing up all QCP documentation and this must be approved by engineering before commencing with work. • All QCP's to be submitted prior to job commencement; QCP's to be submitted a week prior to work commence.	Hold point	Contractor
1.7	Risk assessment	• All work is to be carried out ONLY after daily proper risk assessments are conducted. • The limited access register also needs to be signed on a daily basis for the work that will be done inside the power station/plant areas.	Eskom to witness.	Contractor
1.8	Other requirements	• All required tools, instruments, cabling, trenching, piping consumables etc., are to accompany the contractor to site • All the tools to be declared at the safety gate as gate pass is required and is to be provide to the security at the gate for taking it out of the station.	Eskom to witness.	Contractor

1.9	Inputs from other departments	• Electrical Engineering – Electrical Supply Determinations. • Configuration Management – Provision of all KKS coding.	Eskom to witness.	Contractor
1.10	Commissioning reference	Employer accepted FAT, SAT & SIT criteria documentation.	Eskom to witness.	Contractor

DETAILED SCOPE

	SCOPE OF WORK DESCRIPTION / ACTIVITY	PROCEDURE, SPECIFICATION, ENG. REQUIREMENTS / DOCUMENTATION	HOLD POINTS, WITNESS, REPORTS	RESPONSIBLE PARTY
	MAINTENANCE ON THE FIELD INSTRUMENTS			
PUBLIC ADDRESS SYSTEM				
2.1	Design, supply, install, interface, commission and test a Public Address management system.	➢ 240-64720986: EMERGENCY PREPAREDNESS PUBLIC ADDRESS SYSTEM – FOR LARGE AREA DEPLOYMENT ➢ SANS 60849 South African National Standard for Voice Alarm Systems	HOLD	Contractor

2.3	Public Address management system shall meet the requirements below: **1)** IP65 rated Rack mounted modular systems, which can be expandable (minimum of 20% spare capacity required). **2)** Management system should ensure 99.9% availability at all times. This shall be achieved by the continuous real time surveillance / monitoring of the system and the standby batteries. **3) Rack mounting requirements:** Supply and install rack with the following: a. Cooling fans for racks which provides sufficient cooling of all equipment inside the racks b. Sufficient ventilation to be provided in the event of cooling fan failure	➢ 240-64720986: EMERGENCY PREPAREDNESS PUBLIC ADDRESS SYSTEM – FOR LARGE AREA DEPLOYMENT ➢ SANS 60849 South African National Standard for Voice Alarm Systems ➢ EN54-4 European Norm: Voice Alarm Power Supply Equipment ➢ EN54-16 European Norm: Voice Alarm and Indicating Equipment ➢ EN54-24 European Norm: Loudspeaker Equipment	HOLD HOLD	Contractor Contractor

	c. The front side and rear side of the rack should be accessible with lockable doors d. Cable ingress access to be provided both at the top side and the bottom side of the rack. **4) Power supply requirements:** The power for the rack shall be tapped from the stations dedicated emergency power supply. The Contractor shall be responsible to pull cables and connecting to station supply. A PSR authorised person from Matla Power Station Electrical Maintenance Department (EMD) shall supervise the Contractor. Matla Power Station will provide a breaker where the emergency power supply can be tapped. The Contractor shall be required to install cables, whereby installation entails the laying of the cable along an approved cable route, fastening the cable onto the cable racks/cable support structures and	➢ BS-5839-8 British Standard: Emergency Voice Communication Systems ➢ ISO 7240 Voice Alarm Standards	HOLD	Contractor

	terminating the cable under the supervision of an Authorised Supervisor. Testing of the cable before and after installation – a calibrated multimeter to be utilised for loop checks. Old cabling will be decommissioned and removed accordingly. Old cabling remains the property of Matla Power Station. The Contractor provides a cable schedule, termination drawings, racking/ cable layout drawings, merging / continuity test certificate. The rack shall have a separate UPS power supply that can support the power requirements for at least 24hrs, thereafter the public address management system and associated systems can automatically do a safe shutdown in the event of loss of power. The Contractor to supply the load schedule and load requirements of the public address		HOLD	Contractor

	management system. Breakdown of the power supply requirements shall also be provided. **5) Evacuation tones:** 4 different evacuation tones for different emergencies as follows a. Evacuation: Short shrill continuous tone b. Fire: Long shrill continuous tone c. Emergency: Bass interval tone d. Security: Bass & shrill interval tone **6) Zone Requirements:** The public address management system should cater for supporting at least 20 zones with the capability of expanding in future (when required) **7) Continuous real time surveillance / monitoring Functionality:** a. Should have the automatic scanning functionality (every 5 seconds) to check for any cable break in the system. If detected, the management system should sound an			

	alarm. The alarms shall be monitored at a dedicated HMI screen located at the Electrical Operating Desk (EOD). There should be a local HMI screen at the Public Address Management system Rack. These HMI screens and cabling shall be supplied and configured by the Contractor. b. The alarms shall be acknowledged in the HMI screens , however the alarms will only be cleared once the fault is completely rectified. c. Management system should be able to identify the cable break or speaker malfunction and should be visible (with zone number and speaker AKZ/KKS number) in the HMI screen for easy diagnosis and fault-finding. The AKZ/ KKS number will be provided by Matla Power Station to the Contractor.		HOLD	Contractor

	d. The alarms to be indicated in the EOD HMI screen and the local HMI screen located in the Public Address Management system. The alarms and events shall be recorded in a data historian located in the Public Address Management system rack. There should be a function for acknowledging the alarms (where the information of the user who acknowledges the alarm is recorded). The alarm should only be cleared once the fault is rectified. e. The alarms and events to be recorded in the local database. These events are to be stored at least for a period of two (2) years.		HOLD	Contractor
	8) HMI screen for the Public Address Management system: a. Different levels of security login for the following profiles: i. **Administrators:** To add users, Change settings, and Perform		HOLD	Contractor

	administrative tasks on the system, acknowledge alarms. ii. **Engineers:** To change settings in the system, acknowledge alarms. iii. **Maintenance:** To perform fault finding in the system, acknowledge alarms. iv. **Users:** To view the system, navigate the system, acknowledge alarms. **9) Remote Microphones for announcement:** a. The Public Address Management system shall support at least 5 (five) remote microphones. The remote microphones shall have the ability to activate the 4 (four) different evacuation tones. The proposed locations of the remote microphones are as follows: a. EOD desk b. EP Centre at the fire station c. 5th Floor administration building d. Security reception e. Fireman's microphone			

	b. Matla Power Station uses Cisco phones. With a password, the Cisco phone should be able to transmit voice messages where the announcement can be made to all zones. (This message may include announcements for station events / meetings). c. Only one remote microphone should be able to transmit / talk at a time (i.e., no cross-talk allowed). Zone selection should also be possible in order to select and transmit to one or multiple zones / buildings (i.e., in the event of fire / emergency, to evacuate personnel from one floor / building at a time). **10) Public Broadcasting System Requirements:** a. A standalone amplifier and radio system to be installed in the rack with the following: i. Different selectable radio channels to be played across selectable zones.		HOLD	Contractor

	ii. CD player to play Eskom's pre-recorded messages from the management. iii. Flash drive to play Eskom's pre-recorded messages from the management. **11) Recording Function Requirements:** a. All announcements to be recorded and shall be able to retrieve using a flash drive in .mp3 format (for audit purposes) b. There should be local speaker available at the HMI screen where the recorded messages can be played from the management system rack. c. The HMI display will include the following information:		HOLD	Contractor

	i. Type of the message (i.e. Evacuation, Fire, Emergency, Security, General etc.) ii. The date and time which the announcement was made iii. The size (in kilobytes / megabytes) iv. From which Remote Microphones was the message played (i.e. EOD desk, EP Centre, 5th Floor, Security reception Fireman's microphone etc.) d. Priority of the recorded to be identified in the database and be able to retrieve by user friendly filtering / querying of the system. Priority can be identified as follows: i. Evacuation Messages ii. Fire Messages iii. Emergency Messages iv. Security Messages v. General Announcement Messages			

	12) On-line Data Historian / Database Requirements: a. The historian server should be sufficient to record at least 5 years recorded information (i.e., voice recordings, alarms, events etc.). b. The database for recording should not expire. The recorded messages shall be stored for at least five (5) years in the Public Address Management system. There after it can be over written if the memory of the hard drive is full. c. The data in the historian shall be able to be copied into other storage devices (i.e. Flash drives, external hard drives etc.). d. Automatic back up shall also be possible from the historian servers into the external hard drive for redundancy. If automatic backup is not available, then			

	manual backup option to be provided for backup. e. The Contractor to provide a backup server (with the memory space enough to store five (5) years information). Backup to be done once every month Backup server shall be supplied and configured for automatic backup by the Contractor. The information shall be able to be copied into other storage devices (i.e. Flash drives, external hard drives etc.) **13) Speaker Requirements:** a. The Contractor shall integrate the Public address management system to the existing speakers (that is under working condition) that is installed in Matla power station. b. Where the existing speakers are not working / defective, the Contractor shall			

	replace the defective speaker with the new speaker. The Contractor shall also test and confirm the condition of the existing speaker cables in the power station is sufficient to handle the speaker requirements. c. Different speakers (i.e., Horn speakers, ceiling speakers, speakers with strobe lights etc.), are utilised according to the different plant area / office environment requirements. The Contractor has to determine the types of speaker that is sufficient in order to suit the different harsh Power Station environments. **14) Area of Public Address System Coverage:** a. There are areas in the power station where there are no coverage of Public Address system.			

	b. The Contractor shall provide the necessary trenching, ducting, piping etc., where necessary in order to cater for all the buildings / plant areas / facilities that are located inside the Matla Power Station perimeter. These areas include but not limited to areas listed in Appendix A. c. A plant walk down by the Contractor is recommended to determine the total number of items (i.e., speakers, cabling, strobe lights, amplifiers, power supplies etc.) prior to the submission of the quote. This information obtained from the plant walk down may be used as a basis of the detailed design, which will be submitted for approval from Eskom. d. The Contractor provides the air conditioning for the PA system.			

2.4	**Factory Acceptance Test Requirements (FAT):** Arrange and demonstrate the working of Public Address management system demonstrating the requirements mentioned in section 2.3 of this document during FAT Contractor to prepare FAT requirements for acceptance. This shall be reviewed and accepted by the Employer prior to the FAT meeting. **Factory Acceptance Testing:** All equipment is comprehensively factory tested prior to shipment as far as reasonably practical. The Employer right to appoint a representative or representatives to inspect all parts during manufacturing and to be present at any of the tests specified. The Project Manager is free to specify hold and witness point during the fabrication and factory testing of the Public address management system. The Contractor issues preliminary notification of such hold and witness points by fifteen day advance notice to the Project Manager and		HOLD	Contractor

	confirms such hold and witness points at least seven days prior to the activity. Once the inspection authority is established, all third party equipment is also incorporated in the inspection. A minimum of ten working day notice is given by the Contractor for such inspection and is shown in the accepted programme. **Pre-Factory Acceptance Test** The Contractor conducts a pre-factory acceptance test at the Contractor's factory in preparation for the FAT with the Project Manager and is shown in the accepted programme. During the Pre-FAT the Contractor's engineers test and verify the individual software and hardware modules of the design specification as agreed upon at design freeze, as well as the integration of all software and hardware of the works. The Contractor's Pre-FAT test are documented as part of the Contractor's QC procedure. The Contractor submits the QC procedure and pre-FAT test and inspection results to the Project Manager prior to the commencement of FAT.			

	FAT During FAT, the Contractor demonstrates that the Public address management system meets the requirements of this Works Information, Detailed Engineering design Freeze documentation, As Build operating and philosophies. Both the Contractor and the Project Manager witness the FAT The Contractor guarantees that all system hardware and software is available and operational in time for the individual tests. As a minimum, the following tests and inspections are performed during FAT: • Full testing of system hardware including servers, HMI, network switches. • System integrity and application tests • Software functionality The Project Manager determines if any further testing is required in addition to that specified, such as that of a new technologies being used.			

	FAT Procedure The Contractor prepares a detailed test procedure in preparation for FAT. The proposed test procedure is prepared by the Contractor and submitted to the Project Manager for acceptance during the system engineering stage. The final test procedure is prepared by the Contractor and submitted to the Project Manager for acceptance at ten working days prior to the scheduled test date. As a minimum, proposed FAT procedure identifies the following: • Major test activities • Comprehensive list and description of the individual tests to be performed • How the test are to be prepared and conducted • Tests dates and durations • Checklists - how the test results will be documented • Acceptance criteria • How the identified discrepancies will be processed • Retesting requirements			

	A final FAT report is prepared by the Contractor that includes the following as a minimum: • Test procedure used during FAT • Details test results • Discrepancies identified during the test • Resolution of the discrepancies • Retests conducted and results and results thereof • FAT certificate The Contractor submits the FAT Report to the Project Manager for acceptance. FAT Completion is achieved upon acceptance of the Final FAT Report by the Project Manager.			
2.5	**Site Acceptance Test Requirements (SAT):** a. Arrange and demonstrate the working of Public Address management system demonstrating integration of the management system with existing TOA V-1000 series and TOA VX-2000 series equipment, speakers, amplifiers and		HOLD	Contractor

	cabling that was already installed at Matla Power Station during SAT. b. Contractor to prepare SAT requirements for acceptance. This shall be reviewed and accepted by the Employer prior to the SAT meeting.			
2.6	**Integration Requirements:** The Contractor is responsible for all the necessary trenching, piping and cabling in order to integrate the Public Address Management system with the existing public address system installed at Matla power station.		HOLD	Contractor
2.7	**Logistics Requirements:** To design, manufacture, supply, transport, test, install, integrate, commission, and storage of the Public Address Management system and it components (i.e., speakers, amplifiers, power supply, database servers etc.).		HOLD	Contractor

2.8	**Spares Requirements:** a. The Contractor to provide a complete list of spares required in order to make the management system reliable, available and maintainable at all times. b. This document should include the complete list of equipment used, the life cycle of the equipment, the maintenance required and the frequency of when the maintenance to be carried out. The Contractor provides the commissioning and the calibration procedures as well as maintenance and installation manuals and layout drawings. c. The Contractor provides all software and licenses installed, backup and recovery procedures for the system.		HOLD	Contractor

2.9	**Documentation Requirements:** The Contractor shall provide datasheets, operating manuals, maintenance manuals and interface drawings in the following: i. **3 x Soft Copies:** This could be in the form of pdf, word document and/or Eskom approved engineering software systems. ii. **3 x Hard Copies:** Files clearly marked in the front cover, indexed and separated by file dividers.		HOLD	Contractor
2.10	**Decommissioning of existing Equipment** Decommissioning of existing TOA V-1000 series and TOA VX-2000 interface systems (where necessary) and utilising the existing cabling, speakers and amplifiers without affecting the day-to-day operation.	32-345 Waste Management Standard 557-4090 Waste Management Procedure 240-11767932 Sanitation of Data Storage Media 557-12016 Scrapping of Assets Form	HOLD	Contractor

	Assessment and testing of the existing cable to be done in order to confirm whether the existing cable can be re-used for installation of speakers. A calibrated multimeter to be utilised for loop checks. Loop testing to be done after installation of the speakers in the existing cable (both by impedance measurements and by sending voice signals and verifying the sound is audible in the speaker loops). Where existing cables cannot be used, the Contractor install a new cable. Contractor is responsible for updating loops for existing cables as part of the works. Good house shall be maintained at all times after the removal of existing cables.			

	Electronic equipment which are un-usable(such as amplifiers, speakers etc, to be decommissioned as per the following: • Electronic equipment to be scrapped using the Employer standards and procedures. • After scrapping of assets the equipment to be disposed as per the Waste Management standard and procedure. Old equipment remains the property of Matla Power Station.			
2.9	**Training Requirements:** a. Training materials to be provided and formal training to be conducted. Training should include theory and practical in the operation and the working of the Public Address Management system and its related components (i.e, speakers, amplifiers etc.).		HOLD	Contractor

	The attendees/ candidates to be awarded Certificates of Training once the training is completed. b. Attendance register to be provided as proof after the completion of training. Minimum of 4 training sessions to be conducted at Matla Power Station in order to accommodate shift workers. c. Training to be provided for different disciplines as follows: i. Administrators ii. Engineers iii. Maintenance **iv.** Users			

SECTION 3: ESKOM POLICIES, PROCEDURES AND GUIDELINES

3.1	The following Standards, Eskom Policies, Procedures and guidelines was referred and is applicable in this document	Refer to the following: - 240-64720986: Emergency Preparedness Public Address System – For Large Area Deployment - ISO 9001 Quality Management Systems. - EN54-4 European Norm: Voice Alarm Power Supply Equipment - EN54-16 European Norm: Voice Alarm and Indicating Equipment - EN54-24 European Norm: Loudspeaker Equipment - BS-5839-8 British Standard: Emergency Voice Communication Systems - ISO 7240 Voice Alarm Standards - SANS 60849 South African National Standard for Voice Alarm Systems

BILL OF MATERIAL

	Full description Material/Spares/Equipment	Specifications of Material/Spares/Equipment	Stock No	Part Number	Required Quantity
1.	Contractor to provide the list of the bill of materials to Eskom for the public address management system, and associated equipment (i.e., including speakers, cabling, strobe lights, amplifiers, power supplies etc.).	To be provided by the contractor			

Description of the *works*
Executive overview

Design, interface, install and commission a Public Address management system that is compatible with existing TOA V-1000 series and TOA VX-2000 series equipment, speakers, amplifiers and cabling.
The public address system shall have standalone power supplies, 20 zones with 4 Evacuation tones, continuous real time surveillance / monitoring functionality.
The system also includes easy fault-finding functionality where the system identifies a cable break or speaker malfunction and alarms it back to the HMI screen of the public address management system.

Employer's objectives and purpose of the *works*

The current system is an obsolete, non-compliant hybrid system comprising of two different series of TOA products of which the majority of the components are dated as being first introduced in the market over 35 years ago.
The older of the components are of the TOA V-1000 series and there are few components of the TOA VX2000series. There are no longer any spares are available, or support offered for the older components, which make up the bulk of the total components.

The system is a centralized system, which has been interconnected in a semi-decentralized configuration using existing copper telephony cable. The system is a non-intelligent system that is incapable of providing any real-time surveillance of the system as a whole.

The cabling is not the required PH series of Fire/Alarm cabling. All terminal equipment (speakers) is noncompliant to Eskom.

Matla Power Station has a PA system that is obsolete, does not cover all areas and is non-compliant to the new Eskom PA system standard (240-64720986). There are areas, which are not covered by the existing PA system. If the current PA system fails, it is not possible to rectify, as the system is already obsolete. Thus, proper evacuation will not be possible in the event of an emergency. Hence, this is a huge safety risk to Matla and has been in the agenda of Matla Main SHE is meeting.

The areas where there is no coverage for Public Address system, the safety personnel used to go outside to listen to the emergency announcement.

Eskom Telecoms was maintaining the obsolete system to some extent, unfortunately this support has been discontinued.

Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	**Meaning given to the abbreviation**
QCP	Quality Control Plan
ITP	Inspection Test Plan
QMS	Quality Management System
ISO	International Standards Organisation

Management and start up.

Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register, Early warnings and compensation events	Bi- weekly	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Construction progress meeting	Weekly	TBC	*Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager*
Commercial and Assessment meeting	Monthly	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Quality meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
SHE meetings	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Integration meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Planning meeting	As advised by the Project Manager	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager
Document Management	Adhoc	TBC	Employer, PM, Contractor, Supervisor, and Others as per the invite from the Project Manager

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

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

Documentation control

Documentation Requirements

The Contractor is responsible for the compilation and the supply of the documentation during the various project stages and to provide the documentation programme to link with the milestone dates. Documentation and drawings are programmed for delivery to meet the milestone dates.

All documents supplied by the Contractor shall be subject to Eskom's approval. For consistency, it is important that all documents used within the project follow the same layout, style and formatting as described in the Technical Documents and Records Management Work Instruction (240-53114186). Documents such as QCP's, Method Statements and other documents impacting the work shall be approved by the Employer prior to commencement of the Works.

Each revision of a document or drawing shall be accompanied with a list of the comments made by the Employer on the previous revision if applicable and the response/corrective action taken by the Contractor. Changes shall be recorded in a revision table contained in each drawing/document.

Documents and drawings shall indicate the Employer's number as allocated by the Employer. The Contractor may have his own internal document or drawing number on the document or drawing, but where reference is made among documents, the Employer's number shall be used as the reference number.

The Contractor shall compile a complete data book for all work done during manufacturing, construction and commission containing the following as a minimum if applicable:

- Scope of work
- Approved "As built" drawings (CADDED)
- Design calculations
- Approved QCP / ITP
- Inspection reports
- Pipe ovality reports if applicable
- As built drawings (isometric drawings and P&IDs)
- Material summary that gives full traceability between components used, drawings and material certificates
- All material certificates for pipes, fittings and all components used.
- Pressure test certificate and the calibration certificates of the gauges used.
- Pressure test procedures
- The manufacturer's/repairer's certificate as defined in PER.
- All CAR's and corrective actions
- Operating Philosophy including all alarm and trip values
- Parts catalogue

- Maintenance manual
- Storage, packing and transportation instructions

Document Identification

The documentation requirements cover the various engineering stages, from the design stage through fabrication, installation, testing and commissioning and most importantly for the operating, maintenance and training stages of the project.

The *Contractor* is responsible for the compilation and the supply of the documentation during the various project stages and to provide the documentation programme linked to the milestone dates. Completion dates for documentation and drawings are scheduled to meet the milestone dates.

All documents supplied by the Contractor shall be subject to Eskom's approval. For consistency, it is important that all documents used within the project follow the same layout, style and formatting as described in the Technical Documents and Records Management Work Instruction (240-53114186). Documents such as QCP's, Method Statements and other documents impacting the work shall be approved by the Employer at least 3 working days prior to commencement of the Works.

As a minimum, the following should be in the method statement:

i. Activity
The Contractor illustrates the description of the major activities as of the programme described under Programming.

ii. Quantity
The Method Statement shows the quantity of that particular activity taken from the Bill of Quantities with its unit of measurement; this will directly influence the method to be used.

iii. Method
The Method Statement provides a short but complete description of how the activity will be executed, to engage the Project Manager with risks associated the method used.

iv. Sequence
The Method Statement shows the sequence of the activities; this serves as an indication to the planner on how activities will be linked. The sequence must also indicate if, and how activities can be overlapped.

v. Resources
All necessary equipment and labour required to complete a particular activity must be indicated in the Method Statement, this is used to assess the compensation event, should similar activities become a compensation event.

vi. Duration
The duration of the activity will be indicated in the Method Statement and will be quotient of quantity and production rate of the activity. This will illustrate if the estimated duration is realistic as stated in bullet number 3 of Clause 31.3 NEC Engineering and Construction Contract.

- The Contractor shall ensure that document has the following minimum attribute on the cover page:
    - Title of the document
    - Document Unique Identification Number (Eskom number)
    - Contractor Document number, if applicable

- Document status
- Revision number
- Document Type
- Document security level
- Document revision table/history
- Page number on the footer
- Document Author/Authoriser/
- Document Originator Contractor

- The following additional attributes are important for technical documents:
- Package/System name, sub-system if applicable
  - Unit/s number
  - Contractor name
  - Contractor number
  - Plant Identification Codes

Format and Layout of Documents

For consistency, it is important that all documents used within a specific domain follow the same layout, style and formatting standard.

Layout and Typography

Every document should comply with the following font specifications:

- Font Colour: Black
- Main Headings Font Type: Arial, Bold, Capital Letters
- Main Heading Font Size: 12pt
- Sub Headings Font Type: Arial, Bold, Title Case
- Sub Headings Font Size: 11pt
- Body Font Type: Arial, Sentence Case i.e., only the first letter of the first word is a capital letter.
- Body Text Font size: 11pt
- Line Spacing: 1.5 line spacing
- Margins: standard
- Alignment: full justification to be used
- Paragraphing: one line skip between paragraphs
- Pagination: centred page numbers (about 0.5 inches from bottom)
- Indentations: standard tab for all paragraphs (about 0.4 to 0.5 inches)

Document Headers

The header should include the project name, document title, document number, revision number and page number.

Naming of files

The Contractor will comply with the Eskom standard for naming documentation files. For Eskom procedures and standards refer to the attached scope of work.

Document Submission

Contractor engineering program shall allow a minimum of 5 days for mailing, processing, and review of drawings and data by Employer. The Contractor is responsible for the compilation and the supply of all the documentation required during the various project stages and to provide the documentation programmed to link with the milestone dates.

The Contractor shall document all documentation that will be sent to the Employer in the Master Document List (MDL) as provided by the Employer

If the Contractor makes further changes to the equipment and materials shown on submittals that have been reviewed by the Employer, the changes shall be clearly marked on the submittal by the Contractor and the submittal process shall be repeated. If changes are made by Contractor after delivery to the Plant, as-built drawings indicating the changes shall be prepared by Contractor and submitted to Employer for review. Any resubmittal of information shall clearly identify the revisions by footnote or by a form of back-circle, with revision block update, as appropriate.

Transmittals

All document exchange shall be done using formal Transmittals. The following is the minimum information required for sending transmittals:

- Title of the document
- Reason for issuing/submission
- Transmittal Number
- Transmittal Name
- Transmittal Description
- Contract Number:
- Package Number
- Transmittal purpose
- Sender Name
- Sender E-Mail
- Sender Organisation
- Recipient Name
- Recipient E-Mail
- Recipient Organisation
- Disclosure Classification
- Date received
- Quantity of documentation referenced on the transmittal
- Number of copies
- Format/medium submitted (e.g. paper, DVD, etc.)
- Sender signature
- Recipient signature, once submitted, to acknowledge receipt

1. If a transmittal is in response to an Eskom communication via transmittal, the Eskom Transmittal Number shall be referenced in the transmittal response and shall be provided in addition to the meta-data required.
2. The Contractor shall follow a structured and standard definition for Transmittal Descriptions, i.e. a subject line convention of **YYYYMMDD – <Contract & Package Number> – <Vendor> – <Short Description> – <Sender Initials>.**
3. **The Contractor shall follow a structured method of communication as defined within Communication Interface Memorandum (CIM) for any correspondence**
4. The Contractor shall follow a structured and standard definition for email subjects i.e. a subject line convention of **YYYYMMDD – < Package File Number> – > – <Email Subject line>.**
5. The Contractor shall select the purpose for transmittal in line with the standard Eskom Selection Criteria:

- Issued for Approval
- Issued for Award
- Issued for Basic Design

- Issued for Commissioning
- Issued for Concept Design
- Issued for Consideration
- Issued for Construction
- Issued for Detail Design
- Issued for Document Review
- Issued for Handover
- Issued for Information
- Issued for Installation
- Issued for Manufacturing
- Issued for Procurement
- Issued for Review
- Issued for Tender

6. Issuing of documents with different transmittal purposes shall be done separately and shall not combined into one transmittal. This will ensure fast and efficient processing of incoming and outgoing transmittals and information exchange.

Electronic technical data submittals shall be made using the project manager's email address (and Zendto, a Web-based file transfer service. If *Contractor* does not already have Zendto transmittal capability, information is available at https://zendto.eskom.co.za/. (The Uniform Resource Locator [URL] to be used for electronic file submittals will be made available upon Contract award.)

In case of email submission, the Contractor should note that if a single file to be transmitted is over 2MB in size, then the document shall be uploaded on Zendto portal.

Notification to Engineer that submittals have been posted to Zendto shall be in accordance with the correspondence requirements of this Contract. *For the Zendto submission, a transmittal record must be submitted to the project email document control address information the* Employer *of such a submission.*

Health and safety risk management

The *Contractor* shall comply with

- The Occupational Health and Safety Act, 1993, and all regulations made there under;
- All Eskom Safety and Operating Procedures.

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

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

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

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

Refuse any employee, sub-contractor or agent of the *Contractor* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualifies in terms of the 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 1 above by the Contractor or any of its employees, sub-contractors or agents.

The *Contractors* safety file is to be submitted for approval to Matla's Safety Officer within three (3) days after order placement.

Environmental constraints and management

The Contractor shall comply to environmental authorizations obligations, water use licences, environmental management plan/programmes, any other applicable legislative requirements (local, provincial, national and international). The contractor shall also comply with Eskom policies and procedures.

The Contractor develops and implements as a minimum the following procedures/ method statements in line with site environmental regulations:

- Environmental Management Plan
- Site Establishment Procedure
- Site Layout Plan
- Waste Management Procedure
- Spill Management Procedure
- Hazardous Chemical Substances Management and Storage Procedure
- Water Management Procedure
- Stockpile and Erosion Management Procedure
- Clear-and-Grub Procedure
- Environmental Rehabilitation Procedure
- Veld Fire Procedure
- Environmental Training Awareness Procedure
- Emergency Preparedness and Response Plan
- Dust Control Procedure

All environmental procedures/ method statements, as listed above, are site-specific and submitted to for acceptance by the Project Manager before the commencement of construction activities.

Quality assurance requirements

The *Contractor* shall be required to demonstrate by means of a Quality Plan that this organisation is so structured that all the requirements of the specification will be properly monitored and controlled. The Quality Plan and Control procedures are to be carried out in accordance with the Quality Control document NWS 1841/C1 and the Matla Quality Manual for *Contractor*. The Quality Control document is to be submitted for approval to Matla Engineering within three (3) days after order placement by the *Contractor*.

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

The following requirements shall also be met for the entire duration of the contract. The standard 240-105658000, “Supplier Quality Management Specification (QM58)” shall be complied with.

- The supplier shall complete and sign **Form A** (Enquiry/Contract/Quality Requirements for QM 58 and ISO 9001).
- The supplier shall submit objective evidence of a developed QMS that complies with **ISO 9001** (or the latest applicable revision). The following documents (approved/signed copies) shall be submitted:
  - Quality management system manual or a document that defines and describes the QMS and its scope
    Quality Policy
  - Control of documented information
  - Records required by ISO 9001 standard (List of Records)
  - Internal audit procedure
  - Control of nonconformity outputs
  - Nonconformity and Corrective action procedure

The QMS should drive all the supplier’s business management processes to ensure that all of Eskom’s requirements are fully met on a consistent basis.

- The supplier shall submit a **draft contract quality plan** that is specific to the scope of work as described in the tender documents. The plan must address the minimum requirements as per ISO 10005.
- Where applicable; the supplier shall submit an **example inspection and test plan (ITP) or quality control plan (QCP)**. The plan must address the minimum requirements as per ISO 10005 (if applicable).
- The supplier shall submit documented information for Control of Externally Provided Processes, Products and Services.
- The supplier shall submit a copy of documented information for roles, responsibilities and authorities.

Note: specific requirements per tender will be selected using the List of Tender returnable document (240-12248652)

- The Supplier shall comply with the quality requirements as stated in 240-105658000 - Supplier Quality Management Specification.
- *Compliance with Category 3 quality requirements and all other relevant requirements are mandatory.*
- Compliance with all Eskom standards and governance is essential for all aspects of the works including mechanical, C&I, civil, metallurgical, non-destructive testing, electrical, structural, administration and all other aspects.

Programming constraints

The Contractor will provide a detailed programme every second day during the project or as requested by the *Employers Representative*. The *Employer* may terminate a contract if a detailed programme is not submitted as requested by the *Employers Representative*. The final contract programme and breakdown will be agreed upon within three (3) days after order placement by the *Employer* & the *Contractor*.

The Contractor will provide a detailed programme every second day during the project or as requested by the *Employers Representative*. The *Employer* may terminate a contract if a detailed programme is not submitted as requested by the *Employers Representative*. The final contract programme and breakdown will be agreed upon within three (3) days after order placement by the *Employer* & the *Contractor*.

- **More than R350 000,00**

  - Computerized logic network
  - Network barchart
  - Time analysis (print out listing)
  - Weekly updated critical activities report
  - Weekly updated resource report
  - Weekly updated interface dates with other Contractors.

- **Activities on critical path**

On request from the *Employers Representative* for work on critical path the *Contractor* must submit

- Computerized programme twice a day.
- However, should a logic change been executed by the *Contractor*, A revised network, bar-chart and time analysis must be submitted by the *Contractor*.
- Key dates are considered as part completion dates and failure by the *Contractor* to meet those dated could result in the imposition of penalties by Eskom.
- If any difficulties are foreseen in complying with the requirements of this document, these must be resolved with the *Employers Representative* before the tender is submitted.

Contractor's management, supervision and key people

Contractor to provide organogram listing management and key personnel including the following:

Construction Manager (Site dedicated)
Construction Supervisor (Site dedicated)
Safety Officer (Site dedicated)

Invoicing and payment

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

The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

- Name and address of the *Contractor* and the *Project Manager;*
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

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

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 showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate. Clause 50.2 states invoices submitted by the *Contractor* include the details stated in the Scope to show how the amount due has been assessed. The *Contractor* shall address the tax invoice to the email address that will be provided and include on it the following

information. The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

Name and address of the *Contractor* and the *Project Manager;*
The contract number and title;
Contractor's VAT registration number;
The *Employer*'s VAT registration number 4740101508;
Description of service provided for each item invoiced based on the Price List;
Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
(add other as required)

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

Insurance provided by the *Employer.*

Refer to Clause 84.

Contract change management.

Contract change management will follow the normal compensation event process. Any change implemented by the Contractor without following the compensation event process will not be assessed for payment by the Project Manager

Provision of bonds and guarantees.

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer*'s right to termination stated in this contract.

Records of Defined Cost, payments & assessments of compensation events to be kept by the *Contractor.*

Not applicable

Training workshops and technology transfer

Not applicable

Engineering and the *Contractor*'s design

Design, interface, install and commission a Public Address management system that is compatible with existing TOA V-1000 series and TOA VX-2000 series equipment, speakers, amplifiers and cabling.
The public address system shall have standalone power supplies, 20 zones with 4 Evacuation tones, continuous real time surveillance / monitoring functionality.
The system also includes easy fault-finding functionality where the system identifies a cable break or speaker malfunction and alarms it back to the HMI screen of the public address management system.

Employer's design

Not applicable

Parts of the *works* which the *Contractor* is to design

Procedure for submission and acceptance of *Contractor*'s design

All procedures, standards and specifications stipulated in the scope of work must be adhered during the work execution.

Other requirements of the *Contractor*'s design

As per the attached scope of work.

Use of *Contractor*'s design

Not Applicable

Design of Equipment

Equipment required to be included in the *works*

The *Contractor* provides plant and materials, machinery, tools, labour, transportation, construction fuels, chemicals, construction utilities, and administration and other services and items required to complete the scope of work.

As-built drawings, operating manuals and maintenance schedules

The contractor should just follow the scope and all Eskom standard and procedures specified in the scope.

Procurement

People

Minimum requirements of people employed on the Site

The contractor should employ labours from Kriel and surrounding areas. Eskom dash board hiring offices should be used. No hiring is allowed at Matla Power Station gate.

BBBEE and preferencing scheme

Not Applicable

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

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor*'s ASGI-SA Compliance Schedule stated below

.

The *Contractor* shall keep accurate records and provide the *Project Manager* with reports on the *Contractor*'s actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

The *Contractor*'s failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

Subcontracting

Preferred subcontractors

Not applicable

Subcontract documentation, and assessment of subcontract tenders

Not Applicable

Limitations on subcontracting

Not applicable

Attendance on subcontractors

Not applicable

Plant and Materials

Quality

The Contractor shall be required to demonstrate by means of a Quality Plan that this organisation is so structured that all the requirements of the specification will be properly monitored and controlled. The Quality Plan and Control procedures are to be carried out in accordance with the Quality Control document NWS 1841/C1 and the Matla Quality Manual for Contractor. The Quality Control document is to be submitted for approval to Matla Engineering and Quality within three (3) days after order placement by the Contractor.

No work may commence unless the Quality Control document has been approved in writing and a copy submitted to the Employers Representative. The Contractor, in conjunction with Matla Engineering and Quality must sign off all Quality Control documents after completing all work on site. The Contractor to submit a copy of the final signed off document to the Employers Representative within 1 week after Completion of the works.

Plant & Materials provided "free issue" by the *Employer.*

Not Applicable

Contractor's procurement of Plant and Materials

Not applicable

Spares and consumables.

Not Applicable

Tests and inspections before delivery

The technical specification and Quality (QM58) will apply on Offsite and Site inspections
The Contractor must make a provision for access for the Project Manager and Others before, during and after the test and inspection dates to their workshops and site

Marking Plant and Materials outside the Working Areas

The contractor should mark their plant and material on site.

Contractor's Equipment (including temporary works).

Not Applicable

Cataloguing requirements by the *Contractor*

Not Applicable

Construction

Temporary works, Site services & construction constraints

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

The Contractor's Personnel and any visitors on the Project Site must be in possession of a valid identification card supplied by the Employer. Applications for identification cards shall be made in the form prescribed by the Project Manager. The identification cards shall be used to gain access to the Project Site and only persons with legitimate business on the Project Site and in possession of such identification cards will be allowed access. Applications for identification cards shall be made in good time prior to access being required. Lost, stolen or damaged cards shall be reported to the Project Manager immediately. A fee shall be charged for replacement cards. Identification card holders will be required to produce their identification cards for an ID photo at the security check points. Where a card holder's right of access to the Project Site is withdrawn, their identification card will be electronically cancelled. It is the responsibility of the Contractor to ensure the card is returned to the Project Manager.

Removal of Goods from the Project Site
All persons removing *inter alia* materials, equipment, toolboxes, temporary facilities etc. from the Project Site must be in possession of a valid gate release permit. Applications for general or specific gate release permits shall be made in the form prescribed by the Project Manager.

Access Control for Vehicles
Only a limited number of Contractor and Subcontractor non-construction vehicles will be allowed onto the Project Site. The Contractor is responsible for allocating within their allocated site parking for employees and visitors. Vehicle entry discs will be issued at the discretion of the Project Manager on receipt of an application signed by the Contractor. Applications for vehicle entry discs shall be made in a form prescribed by the Project Manager.

Visitors
Before entering the Project Site, visitors (meaning any person other than the Contractor's Personnel) must be in possession of a valid identification card as mentioned above. Applications shall be made in a form prescribed by the Project Manager prior to access being required and visitors must be in possession of positive identification. The Contractor's visitors shall be subject to all Project Site rules and regulations including those related to Health & Safety and discipline. As a minimum requirement, visitors must wear safety shoes, hard hats, reflector vests, safety goggles, dust masks and any other personal protective equipment as required by the Project Manager and must be accompanied by their hosts at all times whilst on the Project Site.

Fire-arms
Fire-arms will not be permitted on the Project Site (nor at other places, if any, as may be specified under the Contract as forming part of the Site). This restriction does not, however, apply to the South African Police Services in the pursuance of official duties and Security personnel approved by the *Project Manager.*

Restrictions to access on Site, roads, walkways and barricades

The Contractor shall comply with the Project Manager's directions for the movement of traffic, vehicles or pedestrian, at the Project Site. The Contractor shall interfere as little as possible with Project Site traffic,

vehicles or pedestrian, during the performance of the Works. When necessary to cross, obstruct or close roadways or walks, the Contractor shall provide advance notice to the Project Manager, obtain the permission from the Project Manager and maintain suitable detours or other methods for the accommodation of other Project Site traffic. In making open cuts across traffic paths, the Contractor, unless otherwise approved by the Project Manager, shall cut only one-half of the traffic paths at a time. These Project Site traffic provisions shall likewise apply to places, if any, outside the Project Site as may be specified under the Contract as forming part of the Site.

People restrictions on Site; hours of work, conduct and records

It is very important that the Contractor keeps records of his people on Site, including those of his Subcontractors which the Project Manager or Supervisor have access to at any time. These records may be needed when assessing compensation events. The Contractor shall inform the Project Manager in advance for any work that is planned to be executed outside the official working hours.

The Employer's working hours are from:
- 07:00 to 16:30 Monday to Thursday
- 07:00 to 12:00 on Friday

Health and safety facilities on Site

The *Contractor* shall comply with

- The Occupational Health and Safety Act, 1993, and all regulations made there under;
- All Eskom Safety and Operating Procedures.

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

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

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

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

Refuse any employee, sub-contractor or agent of the *Contractor* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualifies in terms of the 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 1 above by the *Contractor* or any of its employees, sub-contractors or agents.

The *Contractors* safety file is to be submitted for approval to Matla's Safety Officer within three (3) days after order placement.

Environmental controls, fauna & flora, dealing with objects of historical interest

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 2003 (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.

Title to materials from demolition and excavation

N/A

Cooperating with and obtaining acceptance of Others

Other Contractors are working in the same area as the work of this contract. In this regard, the Contractor co-ordinates his work with the Project Manager to maintain harmonious working conditions on Site. During the progress of the works the Contractor provides access to others who also execute work in the same area, on an as and when required basis. The Contractor makes his own assessment of the problems and difficulties which may be encountered for providing access to and interfacing with others (this includes access difficulties experienced during construction). The Contractor will have to cooperate with others.

Publicity and progress photographs

The taking of photographs at Matla Power Station including the Project works is restricted and subject to the approval by the Project Manager. For the purpose of the Progress Reporting Requirements, the Project Manager may prohibit the taking of such photographs and/or require that all such photographs be taken by the Employer. All notice boards, advertising rights and media relations should be published with the approval of the Employer.

***Contractor*'s Equipment**

- The Contractor provides all Equipment that is required to complete the works. The Contractor shall ensure that all his construction equipment remains within the fenced off in the allocated construction area.
- The Contractor shall ensure that any equipment moving outside his allocated construction site does not obstruct the normal operation of the power station. Any additional access routes required must be coordinated with the Project Manager.
- The Contractor must keep daily records of his equipment used on Site and the Working areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the Project Manager at all reasonable times.
- All Equipment used by the Contractor in providing the works shall comply with the General Machinery Regulation 4 of the Occupational Health and Safety Act (Act 85 of 1993)

Equipment provided by the *Employer*

No Equipment will be supplied by the Employer; however, the Employer does reserve the right to negotiate with the Contractor on the use of different equipment for whatever purpose that may become apparent at the time. The Contractor supplies all equipment including equipment for the construction of the works and site establishment

Site services and facilities

Water
Contractor to supply water for his employees.
Electricity
All power required for construction and lighting should be provided for by the contractor. The Employer will not supply electrical power for construction purposes.

Facilities provided by the *Contractor*

Contractor's offices and storage

The contractor shall provide contractor's yard and offices to be used by the contractor during the duration of the contract. . The yard will be kept clean and tidy at all times, this will include all workshops and storage areas under the control of the Contractor. Maintenance of the yard is the Contractors responsibility and is for the Project Managers acceptance. Outfall drainage of all surface run-off drains is constructed by the Contractor to the acceptance of the Project Manager to minimise erosion and to effect control of contaminated water

Rehabilitation
The Contractor is responsible for the rehabilitation of the areas of responsibility including lay down area. Amongst others, this shall include the removal of infrastructure such as offices, workshop areas, storage areas, etc… The area should be top soiled and vegetated as per the approved de- establishment plan, environmental authorizations and other relevant regulations.

Ablution Facilities and Refuse
Where required, the Contractor shall provide and maintain adequate and suitable sanitized ablution facilities appropriate to the workforce size and work duration that conforms to the requirements of all applicable legislation. The ratio is 1 ablution to 15 employees for each gender. The separate ablution facilities shall be provided for both genders. These portable ablution facilities will be kept tidy and hygienic during the duration of the Project. Where the Contractor makes use of existing facilities provided by the project, the Contractor shall ensure that their employees support the aim of keeping these facilities clean and hygienic. The Contractor is to supply own sanitary facilities. A refuse and sewage control system will be established by the Contractor. The Contractor submits all safe disposal certificates and waste manifests to the Project Manager.

Accommodation
The Contractor must provide accommodation, and transportation to and from site for its employees. Transportation must also be provided for local employees. Transportation must be sourced local to Matla Power Station.

Existing premises, inspection of adjoining properties and checking work of Others

The Contractor will be responsible for bringing the power and water from the allocated tapping points to the contractor's yard for his final connection as well as Others connection. The Contractor is responsible for issuing a Certificate of Compliance for his electrical works.

Survey control and setting out of the *works*

The *Project Manager* provides coordinates and marking for the beacon for the main setting out grid lines for the *works* and permanent level benchmarks. The *Contractor* takes reasonable steps to preserve beacons and benchmarks. The *Project Manager* is not responsible for any beacons that are removed as long as others exist.

The *Project Manager* designates the working area boundary limits and assigns for the *Contractor's* use access roads, parking areas, storage areas, existing facilities areas and construction areas. The *Contractor* does not trespass in or on areas not designated for his work. The *Contractor* is responsible for keeping *Contractor's* personnel out of areas not designated for *Contractor's* use, except, in the case of isolated work located within such areas for which the *Contractor* is authorised to do so. The control points will be established by the *Contractor.* Land surveys will be done by the *Contractor* before and after clear and grub, before and after topsoil strip and after final excavation before construction commences.

Excavations and associated water control

Prior to commencing work on any trench or excavation, the Contractor shall first submit a completed Excavation Permit to the Project Manager. The permit shall be submitted far enough in advance to allow the Project Manager to review the Contractor's submittal. After reviewing the information, the Project Manager shall sign the permit indicating that it has been approved and return a copy of it to the Contractor. The Contractor may commence work after receiving the signed permit. For all trenches or excavations over 7 meters deep, the *contractor* must have the sloping, shoring, or shielding method reviewed by a Licensed Professional Engineer of discipline. The design must be submitted to the Project Manager as an attachment to the Excavation Permit.

The Contractor shall ensure that a full sketch is provided as part of the permit detailing the excavation and the location of underground services. It is unlikely that Project Manager issued construction drawing(s) even annotated will constitute a detailed sketch for the purpose of recording underground services.

Underground services, other existing services, cable and pipe trenches and covers

The Contractor shall conduct a cable scan using a device that can detect cables and other services. The Contractor shall ensure that the operator of the scanner is adequately trained and competent to use the device to its full capabilities with and without the use of a signal generator.

A contractor shall ensure that all excavation work is done in accordance with the requirements of Construction Regulation 13 of the OHS Act.

- Prior to commencing work on any excavation or trench, utility owners shall be contacted and advised of the proposed work and to determine the location of all underground installations, i.e., sewer, telephone, water, fuel, electrical, etc.
- Overhead hazards shall be assessed and dealt with prior to commencement of work.
- All excavations done by the Contractor are to be clearly demarcated and barricaded to prevent accidental access.
- Barricading must be placed as close (500mm from the edge) as possible to the excavation.

- Where it is impracticable to provide fixed guard railing, effective removable barriers shall be provided at all unguarded openings in guard railing or floors and shall be maintained in position at all times until the hazard no longer exists.
- Warning signs and flashing warning lights at night shall be displayed in suitable positions to warn any persons approaching the area of the location and extent of any excavation.
- No material shall be placed within 3m of the excavation edges.
- Project Manager to review the said register on a pre-determined frequency not exceeding seven (7) days.
- There shall be a supervisor present at all times while work is being performed in an excavation
- No work shall commence in an excavation unless the excavation has been declared safe in writing by the appointed competent person.

Control of noise, dust, water and waste

Noise

The Contractor shall conduct Health Risk Assessment to determine noise levels. If the noise level is medium or high, the Contractor shall implement control measures.

Dust and Air quality control

The dust shall be managed in such a manner that the Contractor complies with Environmental requirements and unnecessary complaints are prevented. The Contractor shall provide all the necessary equipment and tools to do dust suppression in their Contractor's laydown areas, surrounding areas and roads as well as in their working areas. The Contractor is also responsible for dust suppression on common areas, Eskom areas which are not used exclusively, or primarily by the Contractors. The Contractor must also dust supress on other areas that are affecting his works. Dust suppression measures shall be in place to reduce the dust caused by the movement of construction vehicles and other sources.

Water pollution control

The Contractor shall provide the method statement for water pollution control for the approval of the Project Manager. The Contractor shall implement appropriate storm water management control measures prior to construction to manage any erosions such as installing of sediment barriers and/or low berms along the downslope edge of cleared areas to trap sediments on site. Design of sediment barriers should be such that expected flow velocities will not damage the barriers or impair their function. Regular cleaning and maintenance of the barriers should be undertaken.

The Contractor shall ensure that there is no mix of clean and dirty water. The Contractor must inform the PM prior to the abstraction of water from any onsite water bodies.

Waste

For the purpose hereof, "waste" any matter, whether liquid or solid or any combination thereof, which is a by-product, emission, residue or remainder of any process or activity carried out in connection with the works and which is not reused on the Site in the ordinary course of carrying out the works within seven days of production.

The Contractor maintains a high standard of cleanliness during the conduct of his activities at Matla Power Station. This includes areas allocated for storage of materials, site offices etc. to the satisfaction of the Project Manager. The Contractor keeps these areas clean and free from accumulation of waste materials and refuse regardless of the source. The Contractor is responsible for the prompt removal of all waste to a

designated disposal area. The disposal area will be on or in the vicinity of the Power Station and be indicated by the Project Manager.

The Contractor provides an adequate number of marked bins and containers at offices, in yards, at workshops and on the Site for the temporary storage of waste. These bins and containers are subject to approval by the Project Manager. The Contractor is required to segregate certain items of waste by type as designated by the Project Manager. Bins and containers are emptied and waste removed to the designated area at least once a week.

All the temporary storage areas for bins and containers are kept tidy and must not constitute a nuisance to others. The Contractor takes all required steps to avoid spillage of waste alongside the bins and containers during removal and disposal thereof. All waste that cannot be contained in either a bin or container is placed on a temporary waste site which the Project Manager identifies. No burning of waste and littering is allowed at the Power Station.

Hazardous waste is dealt with in accordance with the SHE Specification requirements of the works and the Contractor is solely responsible for the proper disposal thereof. Hazardous waste will be disposed of at an authorised landfill site. Waste register will be kept for record keeping and handed over at the end of the Project. The Contractor notifies the Project Manager of all chemical substances coming to site and keeps an inventory and MSDS of the chemicals.

Sequences of construction or installation

The contractor provides a construction schedule and the employer to approve.

Giving notice of work to be covered up

The *Contractor* provides a notice of work to be covered up to the *Supervisor* as per the approved inspection test plans.

Hook ups to existing works

The adjacent plant and equipment may not be modified without written permission from the *Project Manager.* The *Contractor* complies with Eskom Life Saving Rules and will report any non-conformance.

Completion, testing, commissioning and correction of Defects

Work to be done by the Completion Date

Completion will not be achieved until the *Contractor* has successfully completed and handed over all *Works* associated with the contract including the following amongst others;

- Contractor Application for Eskom's Inspection of the Works /Part of the Works,
- Data Packs (e.g. Material Certificates, Qualifications, NDT and Welding Documentation, Cutting Instructions, Factory Design Review Reports, etc.)
- Partial/final Inspection certificate,
- Defects Notification Certificate/Clearance,
- Red-lined drawings for engineering approval,
- Testing results,

- Safety and Housekeeping Certificate,
- Safety Clearance Certificate,
- Completion Certificate,
- Defects Certificate and
- Take over Certificate.

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works. The *Project Manager* cannot certify Completion until all the work has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

Use of the *works* before Completion has been certified

The *Employer* may use any part of the *works* before Completion has been certified but if he does so he takes over the part of the *works* except if the use is for a reason stated in the Works Information

Materials facilities and samples for tests and inspections

The *Contractor* conducts all testing (where/if required) according to the relevant national standards and at Employers request within the testing provisions

Commissioning

The contractor shall provide commissioning procedure of the system after completion, The commissioning procedure is to be submitted to the Employer.

Start-up procedures required to put the *works* into operation.

The *Contractor* gives the *Project Manager* written notice that the *works* are ready for energisation.
Such notice will suit the requirements of the *Employer* but will not, unless otherwise agreed, be less than 48 hours or more than fourteen (14) calendar days.
No alterations or adjustments will be made to the *works* after functional checks are done without the *Project Manager*'s written permission.
At this stage the following must have been achieved:

a) Ensure that SHE File has been approved.
b) Installation and pre-commissioning completed.
c) Testing report and the associated certificates received.
d) Signed erection and safety clearance certificates.
e) Final Draft of the Technical, Operating, Maintenance manuals delivered.
f) All Quality Control Plan (QCP) documentation received.

Take over procedures.

Take over is after or at the same time as Completion. The *Employer* may require the *Contractor* to provide assistance during hand over and data packs to be submitted

Access given by the *Employer* for correction of Defects

The *Project Manager* arranges for the *Employer* to allow the *Contractor* access to and use of a part of the *works* which has been taken over if needed to correct a Defect. After the *works* have been put into operation, the *Employer* may require the *Contractor* to undertake certain procedures before such access can be granted (for example applying for a plant to be safe)

Performance tests after Completion

The projects require the *Contractor* to demonstrate that the *works* can operate as guaranteed by the *Contractor* (in *Contractor*'s Works Information) or specified by the *Employer* in this Works Information.

All performance tests shall be carried out on the upgraded Dust Handling Plant to verify its compliance with the Works Information.

The performance tests shall include, but not be limited to, assessments of dust handling efficiency, system capacity, and overall operational effectiveness.

Eskom acknowledges that there may be instances where the availability of sufficient air for performance testing may be challenging.

In cases where Eskom cannot provide the required air for testing, the *Contractor* shall interpolate the results based on available conditions and provide a detailed report outlining the assumptions made during interpolation.

Eskom and the *Contractor* shall collaborate to schedule another set of physical performance tests when the air requirements can be met adequately.
If Eskom encounters prolonged challenges in meeting the air requirements, the Contractor may, at its discretion, source a dedicated compressor solely for the purpose of commissioning and testing.
If a dedicated compressor is sourced, it shall be used exclusively for commissioning and performance testing of the upgraded Dust Handling Plant.

Eskom shall provide necessary assistance and support to facilitate the integration and utilization of the dedicated compressor for testing purposes.

The costs associated with sourcing and utilizing the dedicated compressor shall be borne by the Contractor.

Training and technology transfer

Include if the Employer requires the Contractor to provide training in the use and maintenance of the works or any associated transfer of technology from him to the Employer.

Operational maintenance after Completion

Plant and Materials standards and workmanship

Not applicable

Investigation, survey and Site clearance

Not applicable

List of drawings

11.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title

C3.2 *CONTRACTOR*'S WORKS INFORMATION

This section of the Works Information will always be contract specific depending on the nature of the *works*. It is most likely to be required for design and construct contracts where the tendering contractor will have proposed specifications and schedules for items of Plant and Materials and workmanship, which once accepted by the *Employer* prior to award of contract now become obligations of the *Contractor* per core clause 20.1.

Typical sub headings could be

a) *Contractor*'s design
b) Plant and Materials specifications and schedules
c) Other

This section could also be compiled as a separate file.

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

Core clause 11.2(16) states

“Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.”

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

1. General description

The Matla Power Station is situated approximately halfway between Bethal and Ogies on the R545, being just over 30 km from each town and 13 km north-west of Kriel town.

2. Existing buildings, structures, and plant & machinery on the Site

As the attached scope of work.

3. Subsoil information

Not applicable

4. Hidden services

Not applicable

5. Other reports and publicly available information

Not applicable