NEC3 Engineering & Construction Contract

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

and **XXX**
(Reg No.: XXX).

for **Auxiliary Bay Suspended Ceiling (28m level) Replacement**

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CONTRACT No.

Part C1: Agreements & Contract Data

Contents:

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:

Auxiliary Bay Suspended Ceiling (28m level) Replacement at Lethabo Power Station

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

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

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

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

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

Tenderer's CIDB registration number (if applicable) .....

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

[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*.

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 .

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

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

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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	
		X2 Changes in the law
		X5: Sectional Completion
		X7: Delay damages
		X15: Limitation of the *Contractor*'s liability for his design to reasonable skill & care
		X16: Retention
		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**
10.1	The *Project Manager* is: (Name)	**Seshni Sewnath**
	Address	**Lethabo Power Station Deneysville Rd Viljoensdrift**
	Tel	**+27 11 709 3134**
	Fax	**N/A**
	e-mail	sewnats@eskom.co.za
10.1	The *Supervisor* is: (Name)	**Suven Govender**
	Address	**Lethabo Power Station**

		Deneysville Rd **Viljoensdrift**
	Tel No.	**011 800 4876**
	Fax No.	**N/A**
	e-mail	**GovendS2@eskom.co.za**
11.2(13)	The *works* are	**Auxiliary Bay Suspended Ceiling (28m level) Replacement**
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.** **Work to be executed in an area covered in the 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	**2 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	**31 December 2023**
11.2(9)	The *key date*s and the *condition*s to be met are:	***Condition* to be met** / ***key date***
		1 **Design approval**
		2 **Supply and delivery**
		3 **Unit works completion**
30.1	The *access dates* are:	**Part of the Site** / **Date**
		1 **Unit 1**
		2 **Unit 2**
		3 **Unit 3** — **Once induction is conducted**
		4 **Unit 4**
		5 **Unit 5**

		6	**Unit 6**
31.1	The *Contractor* is to submit a first programme for acceptance within	**2 weeks of the Contract Date**	
31.2	The *starting date* is	**TBC**	
32.2	The *Contractor* submits revised programmes at intervals no longer than	**Every month**	
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	**The takeover will be after the completion of each unit**	
4	**Testing and Defects**		
42.2	The *defects date* is	**52 weeks after completion of each section of the *works*.**	
43.2	The *defect correction period* is	**2 days**	
5	**Payment**		
50.1	The *assessment interval* is	**The assessment interval will be between the 25th day of each successive month and based on the completed activities as per NEC option A guidelines.**	
51.1	The *currency of this contract* is the	**South African Rand.**	
51.2	The period within which payments are made is	**One calendar month**	
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:	**As stated in Annexure A to this Contract Data provided by the *Employer*.**
	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	**South African Weather Bureau**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**Vaal triangle**
	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*.**
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	**Refer to risk register during implementation**
84.1	The *Employer* provides these insurances from the Insurance Table	**as stated for "Format A"** *http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx* **(See Annexure B for basic guidance) The *Contractor's* liability for payment of the *Employer's* insurance deductible shall be limited to the relevant deductibles payable in terms of the relevant insurance policy as at Contract Date.**
84.1	The *Contractor* provides these additional insurances:	**as stated for "Format A"** *http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx* **(See Annexure B for basic guidance) The *Contractor's* liability for payment of the *Employer's* insurance deductible shall be**

		limited to the relevant deductibles payable in terms of the relevant insurance policy as at Contract Date.
84.2	The insurance against loss of or damage to the *works*, Plant and Materials is to include cover for Plant and Materials provided by the *Employer* for an amount of	**Replacement including the amount stated in the contract data for the replacement of any plant and materials provided by the *Employer***
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the *works*, Plant, 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 for any one event is	**whatever the *Contractor* deems necessary in addition to that provided by the *Employer*.**
84.2	The minimum limit of indemnity for insurance in respect of 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 for any one event is	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands).**
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 Electrical 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	**To be confirmed when there is a dispute**
	Tel No.	**To be confirmed when there is a dispute**
	Fax No.	**To be confirmed when there is a dispute**
	e-mail	**To be confirmed when there is a dispute**
W1.2(3)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Electrical 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			
X1.1 (b)	The proportions used to calculate the price Adjustment Factor are:	Proportion Variable (0.85) Fixed (0.15) Total 1.00	linked to index for	Index prepared by

X2	**Changes in the law**	**NEC3 April 2013 Core Clauses will apply.**

X5	**Sectional Completion**			
X5.1	The *completion date* for each *section* of the *works* is:	***Section***	**Description**	***Completion date***
		1	**Unit 1**	**TBC**
		2	**Unit 2**	**TBC**
		3	**Unit 3**	**TBC**
		4	**Unit 4**	**TBC**
		5	**Unit 5**	**TBC**
		6	**Unit 6**	**TBC**
X5 & X7	**Sectional Completion and delay damages used together**			
X7.1	Delay damages for late Completion of the			

X5.1	*section*s of the *works* are:	***Section***	**Description**	**Amount per day**
	Remainder of the *works*			
	The total delay damages payable by the *Contractor* does not exceed:	**2% of the total price of the section per day up to 15% maximum will be applied to any delays**		
X15	**Limitation of the *Contractor*'s liability for his design to reasonable skill & care**	**There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.**		
X16	**Retention**			
X16.1	The *retention free amount* is	**R0.00**		
	The *retention percentage* is	**5% of every payment made**		
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 described in the insurance policy format selected in the data for clause 84.1 above, which policy is available on** *http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx*		
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) 7 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 covered by the *Employer*'s insurance The *Employer*'s policy deductible, as Contract Date, where covered by *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 covered by the *Employer*'s insurance The *Employer*'s policy deductible, as Contract Date, where covered by *Employer*'s insurance Other property The replacement cost Bodily injury to or death of a person The amount required by applicable l
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 applica 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 limit of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

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 44 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

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 44 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 Lethabo Power 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	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
February	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
March	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
April	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
May	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
June	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
July	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
August	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
September	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
October	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
November	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	
December	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	**To be obtained from SA Weather Bureau**	

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

1 Part two - Data provided by the *Contractor*

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

1.1 Clause	1.2 Statement	1.3 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: 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**		
	1.4 Data for Schedules of Cost Components	*Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).*		
A	**Priced contract with activity schedule**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	**Minus %**		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are **Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.** **Please insert another schedule if foreign resources may also be used**	**Category of employee**		**Hourly rate**
62 in SSCC	The percentage for design overheads is	**%**		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			

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:

C2.2 the *activity schedule*

Item No.	Activity description	Total	Amount
1	Design of the works		
2	Installation and commissioning of the approved protection system.		
3	Removal and reinstallation of ceiling tiles/panels for the existing suspended ceiling.		
4	Cleaning and installation of sound proofing material/system on the existing suspended ceiling.		
5	Removal and reinstallation of office furniture on the 28m level to allow for access.		
6	Procure and supply all materials, tools, equipment and all resources required to execute the works.		
	TOTAL (excl VAT)		
	TOTAL (incl VAT)		

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

Contents

3.1 Description of the *works*

3.1.1 Executive overview

Lethabo Power Station is a coal fired power plant, which is situated in the Northern Free State. The station comprises of six of 618 MW Units. The main power island is divided into four main sections namely the turbine house, auxiliary bay, boiler house and the dust handling plant. The auxiliary bay area is a multi-storey building separating the boiler and turbine house. This building consists of various rooms and offices for critical resources (both human and physical resources). On the 28m level, several near misses have occurred whereby objects (e.g., masonry bricks, scaffolding pieces, etc.) have fallen through the suspended ceiling. This has created an unsafe working environment for employees.

The suspended ceiling, used within the Auxiliary Bay, comprises of a steel frame which is suspended by wire hangers that are attached to the main structural steel roof of the Auxiliary Bay area. T-shape beams form the rigid frame which support the ceiling tiles. Ceiling cornices are attached to the walls around the perimeter of the floor/area. Figure 1 illustrates a typical arrangement of a suspended ceiling. The rigid frame/ceiling also supports the installation of lighting, HVAC system and fire protection. The arrangement of the suspended ceiling and the layout of the office space (i.e., office space) is similar across all six Units.

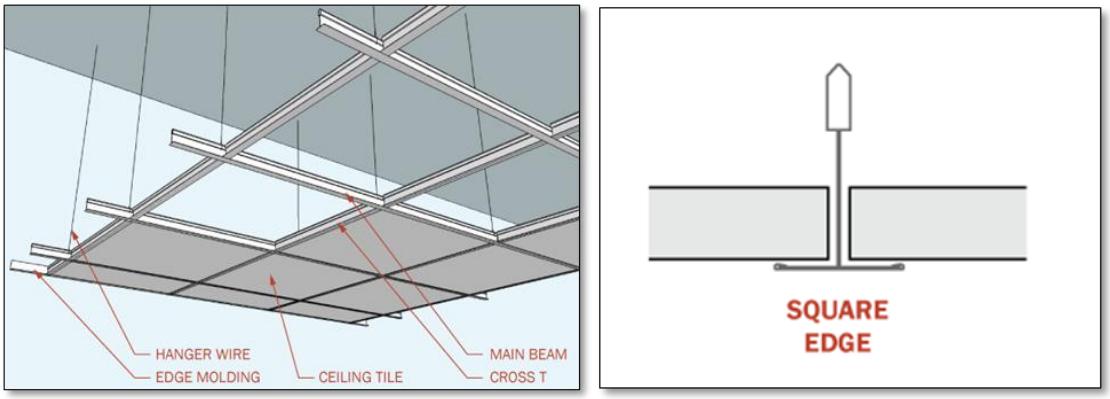


Figure 1: Typical installation of a suspended ceiling

Figure 2: Wire hangers supporting the suspended ceiling

During a plant walk down, it was observed that Units 1, 2, 3 & 5 have a wire mesh installed along the walkway platforms crossing the suspended ceiling. It is assumed that the function of this wire mesh is to prevent objects from falling on the ceiling while workers cross the platform. However, this preventative system has not been installed at Units 4 & 6. Figure 3 illustrates the installed wire mesh along the walkway platform.

Figure 3: Wire mesh installed along walkway platform

The structural layout of the office facility, on the 26m level, is similar across all six Units. The offices can be accessed by two entrances on either side of the floor. Within the facility, the floor space is utilized by three sections namely the H.P pipe reserve, feedwater suction pipe reserve and the open office space. Both the H.P pipe reserve and feedwater suction pipe reserve is cordon off by means of a masonry wall. Figure 4 illustrates the plan layout of the 26m level.

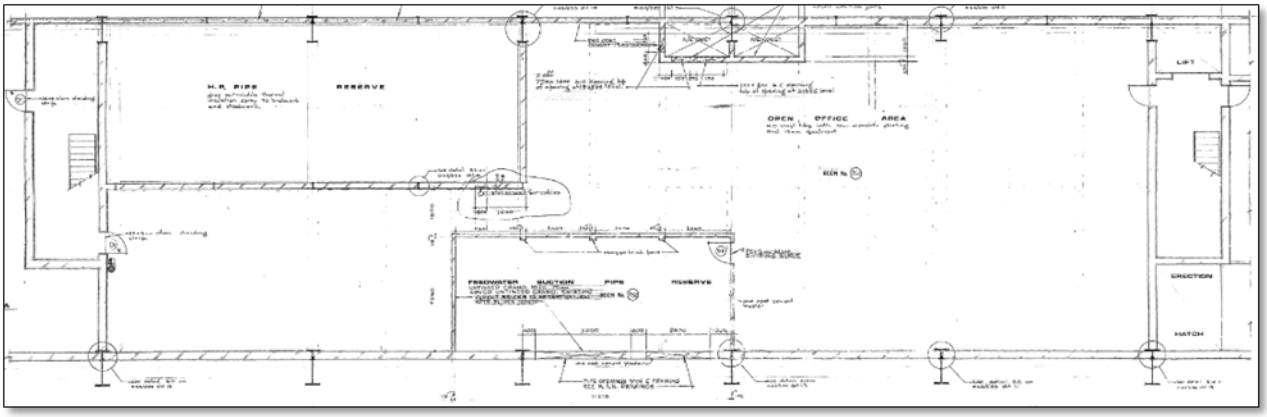


Figure 4: Plan layout of the 26m level within the auxiliary bay (extract from drawing no. 063/11126)

The Works Information provides the technical specification that would form part of the contract. It provides the necessary details to outline the scope of work for the design, manufacture, and construction/installation of the system required above the current suspended ceiling on the 28m level within the Auxiliary Bay Area (across all six Units).

3.1.2 *Employer's* objectives and purpose of the works

The objective and purpose of the *works* is to:

i. Create a safe working environment on the 28m level within the Auxiliary Bay.
ii. Prevent falling objects from penetrating through the suspend ceiling and water seepage during outage works.
iii. The implemented solution is to be executed throughout all six Units.

3.1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
BOQ	Bill of Quantity
COC	Certificate of Compliance
ECSA	Engineering Council of South Africa
ERA	Engineering Risk Assessment
ITP	Inspection Test Plan
NCR	Non-conformance Report
NOD	Notice of Defect
OHS ACT	Occupational Health and Safety Act
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan
SANS	South African National Standards
VDSS	Vendor Document Submission Schedule

3.1.4 References

- 375-LET-AABZ28-SP0004-40: Technical Specification for Lethabo Power Station Auxiliary Bay Suspended Ceiling (28m level) Replacement Project
- Informative
- 240-53113685: Design Review Procedure
- 240-53114026: Project Engineering Change Management Procedure
- 240-53114002: Engineering Change Management Procedure

3.2 Management and start up

3.2.1 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register review	As and when required	To be confirmed	*Contractor* SHE Officer and Employer
Tool box sessions	Every-day before commence of work	Site	All the *Contractor*'s employees

Compensation events	As and when required	To be confirmed	Employer's and *Contractor*'s Representatives
Overall contract progress and feedback	Every Monday, once in implementation phase.	To be confirmed	Employer's and *Contractor*'s Representatives

(1) 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.

(2) All meetings shall be recorded using the Eskom minutes and register templates prepared and circulated by the *Contractor* within five days of the meeting.

(3) 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.

3.2.2 Plant Safety Regulations

(1) The *Employer*, on request from the *Contractor*, isolates required plant from all sources of danger as described in the Plant Safety Regulations.

(2) The *Contractor* supplies his own personal protective equipment necessary to carry out the Works.

(3) The *Contractor* is also responsible for inspecting and maintaining such equipment as required in terms of the OHS Act and local procedures.

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

(5) The *Contractor* will comply with the *Employer's* 'Permit to Work' system.

(6) The *Contractor* conforms to all rules and regulations applicable to plant safety and completes the Workman's Register prior to working on the plant.

(7) The *Contractor* declares any grinding and welding to be carried out on the workers register.

(8) At every permit change the *Contractor* withdraws himself/herself/his staff for that period of permit suspension/revocation and thereafter only proceeds with the Works after signing onto the new permit.

(9) The *Contractor* ensures that he/she/all sub-Contractors/personnel/staff/his visitors are medically, physically and psychologically fit to enter the Lethabo Power Station, and specifically any confined space.

(10) The *Contractor* is prohibited from entering Radiation Areas.

(11) The onus is on the *Contractor* to ensure that the correct confined space requirements and tests have been done or met by the *Employer* prior to entry into any confined space or hazardous plant areas.

(12) The *Contractor* ensures that all personnel are competent to carry out the *Works*.

(13) Proof of competency for technical and safety aspects must be available as and when required on site.

(14) The *Contractor* shall comply with the health and safety requirements as per Eskom's Rules and Regulations

3.2.3 *Contractor's* Management, Supervision and Key People

(1) The *Contractor* is to provide a detailed organogram at for all persons involved on the project (i.e. design and construction phase). The organogram must clearly indicate the employee's details. In the event of any person within the *Contractor's* organogram changing, the *Contractor* is to obtain approval for the replacement from the *Employer*.

(2) The *Contractor* shall provide his own responsible person as required by the Permit to Work system on site during the duration of the *Works*.

3.2.4 Documentation Control

Documentation requirements cover the life cycle of the project from the initial installation stages through to handover and include operating, maintenance, and the training documentation. Not only must these documents be comprehensive and complete but must comply with strict document control and revision procedures.

The *Contractor* plans the supply of the documentation during various project stages and provides the documents in accordance with the key scheduled project milestone dates. All engineering documentation is submitted as per the VDSS.

The *Contractor* implements a comprehensive document control system for all documents, their revision status and of the document status in relation to the "as built" and "as designed" plant status. Procedures, document control, flow diagrams and indexes are included in this system. The drawing register contains the following information and is submitted monthly, in a Microsoft Excel format, to the *Project Manager*:

- Drawing number (*Employer* and makers number)
- Revision
- Approval status
- Location of drawing at that stage
- Drawing AKZ number
- Drawing description
- Sheet number
- Transmittal number

All the drawings issued by the *Employer* for this contract is copyright protected and are not to be copied by the *Contractor*.

The *Contractor* submits all documentation on a formal transmittal form in triplicate to the *Project Manager.*

3.2.5 Health and safety risk management

The *Contractor* and his sub-Contractors always ensure compliance with safety regulations imposed by any Act of Parliament, ordinance or any regulation or by-law of any local or statutory authority. The *Contractor* acts in accordance with the health and safety requirements stated in the Works Information.

- In carrying out its obligations to the *Employer* in terms of this contract; in providing the Works; in using Plant, Materials and Equipment; and while at the Site for any reason, the *Contractor* complies and procures and ensures the compliance by its employees, agents, Sub-*Contractor*s and mandataries with:

- the provisions of the Occupational Health and Safety Act 85 of 1993 (as amended) and all regulations in force from time to time in terms of that Act ("the OHSA"); and the Eskom "Health, Safety and Environmental specifications for *Contractor*s" document attached to the Works Information (as amended from time to time) and such other Eskom Safety Regulations as are applicable to the Works and are provided in writing to the *Contractor* (collectively "the Eskom Regulations"). The Eskom Regulations may be amended from time to time by the *Employer* and all amendments will be provided in writing to the *Contractor*. The *Contractor* complies with the provisions of the latest written version of the Eskom Regulations with which it has been provided; and the health and safety plan prepared by the *Contractor* in accordance with the SHEQ Requirements

  (The OHSA and the Eskom Regulations are collectively referred to as the "SHEQ Requirements".)

- The *Contractor,* at all times, considers itself to be the "*Employer*" for the purposes of the OHSA and shall not consider itself under the supervision or management of the *Employer* with regard to compliance with the SHEQ Requirements, the *Contractor* shall furthermore not consider itself to be a subordinate or under the supervision of the *Employer* in respect of these matters. The *Contractor* is at all times responsible for the supervision of its employees, agents, Sub-*Contractor*s and mandataries and takes full responsibility and accountability for ensuring they are competent, aware of the SHEQ Requirements and execute the Works in accordance with the SHEQ Requirements.

- 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 authorized in terms thereof and who have received sufficient training to ensure that they can comply therewith.

- The *Contractor* ensures that all statutory appointments and appointments required by any Eskom Regulations are made and that all appointees fully understand their responsibilities and is trained and competent to execute their duties. The *Contractor* supervises the execution of their duties by all such appointees.

- The *Contractor* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract. The person so appointed shall, on request: supply the Eskom Safety Officer with copies of minutes of all Health And Safety Committee meetings, whenever he is required to do so; supply the Eskom Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall advise the Eskom Safety Officer of any changes thereto.

- The *Employer*, or any person appointed by the *Employer*, may, at any stage during the duration of this contract:

  - conduct health and safety audits regarding all aspects of compliance with the SHEQ Requirements, at any off-site place of work, or the site establishment of the *Contractor;*
  - refuse any employee, Sub*contractor* or agent of the *Contractor* access to the premises if such person has been found to commit an unsafe act or any unsafe working practice or is found not to be qualified or authorised in terms of the SHEQ Requirements;
  - Issue the *Contractor* with a stop order should the *Employer* become aware of any unsafe working procedure or condition or any non-compliance with any provision of the SHEQ Requirements.

- The *Contractor* immediately reports any disabling injury as well as any threat to health or safety of which it becomes aware at the Works or on the Site to the *Employer's Representative.*

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

- The *Contractor* appoints a person, qualified in accordance with the SHEQ Requirements, as the liaison with the Eskom Safety Officer for all matters related to health and safety, this person shall be contactable 24 hours a day.

- The *Contractor* confirms that it has been provided with sufficient written information regarding the health and safety arrangements and procedures applicable to the Works to ensure compliance by it and all employees, agents, Sub-*Contractor*s or mandataries with the SHEQ Requirements while providing the Works in terms of this contract. As such, the *Contractor* confirms that this contract and the relevant Eskom Regulations referred to in this contract constitute written arrangements and procedures between the *Contractor* and the *Employer* regarding health and safety for the purposes of section 37(2) of the OHSA.

- The *Contractor* agrees that the *Employer* is relieved of any and all of its responsibilities and liabilities in terms of Section 37(1) of OHSA in respect of any acts or omissions of the *Contractor*, and the *Contractor*'s employees, agents or Sub-*Contractor*s, to the extent permitted by the OHSA.

- The *Contractor* hereby indemnifies the *Employer* and holds the *Employer* harmless in respect of any and all loss, costs, claims, demands, liabilities, damage, penalties or expense that may be made against the *Employer* and/or suffered or incurred by the *Employer* (as the case may be) as a result of, any failure of the *Contractor*, its employees, agents, Sub-*Contractor*s and/or mandataries to comply with their obligations in terms of clause 16, and/or the failure of the *Employer* to procure the compliance by the *Contractor* , its employees, agents, Sub*Contractor*s and/or mandataries with their responsibilities and/or obligations in terms of or arising from the OHSA.

- In carrying out his obligation as the mandatory to the *Employer* for this contract in terms of the National Environmental Management Act No.107 of 1998, the *Contractor* ensures that he complies with the Act when Providing the Services or using plant, materials or equipment.

3.2.6 Environmental constraints and management

The *Contractor* to be ISO14001 Certified. The *Contractor* is to ensure compliance to environmental requirements of ISO14001 and the following Lethabo environmental procedures:

- LBE21001
- LBE21002
- LBE22001
- LBE22002
- LBE22004
- LBE2205
- LBE23001
- LBE23003
- LBE23004

3.2.7 Quality assurance requirements

To ensure conformance to Quality Management Systems Standards the following standards must be followed

- ISO 9001:2015 Quality Management System requirements.
- ISO10005 – Quality Management System Guidelines for Quality Plans
- ISO10006 – Quality Management Systems Guidelines for Quality Management in Projects
- ISO10007 – Quality Management Systems Guidelines for Configuration Management
- ISO31000 – Risk Management Principles & Guideline

1) The *Contractor* submits a fully detailed Quality Control Plan (QCP) for acceptance within three (3) weeks of the Contract Date, which details all the aspects of the quality management system to be applied. It includes the methods that will be utilized to ensure quality assurance, control and improvement of the identified activities as stated in the Scope of Works.
2) The *Contractor* submits a schedule of unpriced orders to be placed and this is updated regularly.
3) The *Contractor* is responsible for defining the level of QA/QC (Intervention Points) or inspection to be imposed on his *sub-Contractor*s and suppliers of material in the Quality Control Plans (QCPs). This level is based on the criticality of equipment and must be submitted to the *Project Manager* for acceptance.
4) Product data sheets, product samples, and any other documents are submitted for review and acceptance by the *Project Manager* after contract award and prior to the commencement of work.
5) All quality control documentation is submitted to the *Project Manager* within seven (7) days of Contract date.
6) NCR's and defects notifications are issued, the Service provider will acknowledge the receipt within 48 hours and proposes corrective and preventive actions to the client as per the contract response period. The corrective and preventive actions will include the implementation and completion dates.

3.2.8 Programming constraints

1) As part of the Method Statement and as a tender returnable, the *Contractor* submits a Level 3 construction programme considering all the interfaces and time constraints.
2) This programme does not omit key activities. Timing of the activities is consistent with the Construction Work Method Statement.
3) The programme is to show that the *Contractor* has a clear understanding of the full scope of works, including the accompanying risks. The programme is to be logical and realistic.
4) The Contractor submits a Programme for all the phases of the *works* to the *Project Manager* for his acceptance.
5) This programme is accompanied with the following:
    - A comprehensive narrative which describes the basis of the programme;
    - A list of assumptions that the programme was based on;
6) The programme clearly indicates the following:
    - Activities of all the project work to be done by the *Contractor* and the other work covered by the contract that is being done by the sub-contractors;
    - Logical links/ sequence/ relationships that connect the various activities together (showing all hold points);
    - Master schedule is to show Links/logic, the CPM (Critical Path Method) technique is used for programme and planning. The critical path is clearly illustrated.
    - The works is completed within accepted durations that are in consistence with key dates provided in the Contract Data. Milestone dates in line with Key Date/Contract Data shown on the schedule.
    - Schedule Work Package Classifications (Deliverable, Engineering, Procurement, Manufacturing, Supply, Construction and Installation Work Packages)
    - The amount of shifts planned per day for each section of the works.
    - The way in which the *Contractor* plans to interface with Others. Interface points with Others are identified in the programme;
    - A comprehensive description of each activity, including the name and designation of the responsible person;
    - Full details of all terminal point release requirements;
    - Any erection or commissioning activities that may affect other maintenance and construction activities on Site;
    - Identifies when services are required for commissioning purposes;
    - Sufficient information with regard to the activity duration and a description to enable measurement of the progress of the activity within the required update period;
    - Each description in the programme explains and represents the performance of the activity, including tangible deliverables or products;
    - Resources required to perform an activity for each activity that requires resource assignment;
    - Single source of responsibility or ownership per activity.

3.2.9 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)

3.3 Engineering and the *Contractor's* design

3.3.1 *Employer's* design

The *Employer* has conducted a conceptual design for the project. During this phase of the project, different alternatives were investigated along with a high-level structural assessment/analysis to ensure that all modifications will not compromise the structural integrity of the surrounding civil infrastructure (e.g. steel beams and columns).

The optimal solution for the project was to install a stainless-steel cable mesh and/or debris netting above the existing suspended ceiling on the 28m level. This will prevent fallen objects from penetrating through the ceiling. The steel cable mesh and/or debris netting will be secured to a steel frame, which will be anchored to the perimeter masonry wall. The steel cable mesh and/or debris netting will be designed to resist both impact loads and accessible loads (i.e., employees retrieving the fall object/item).

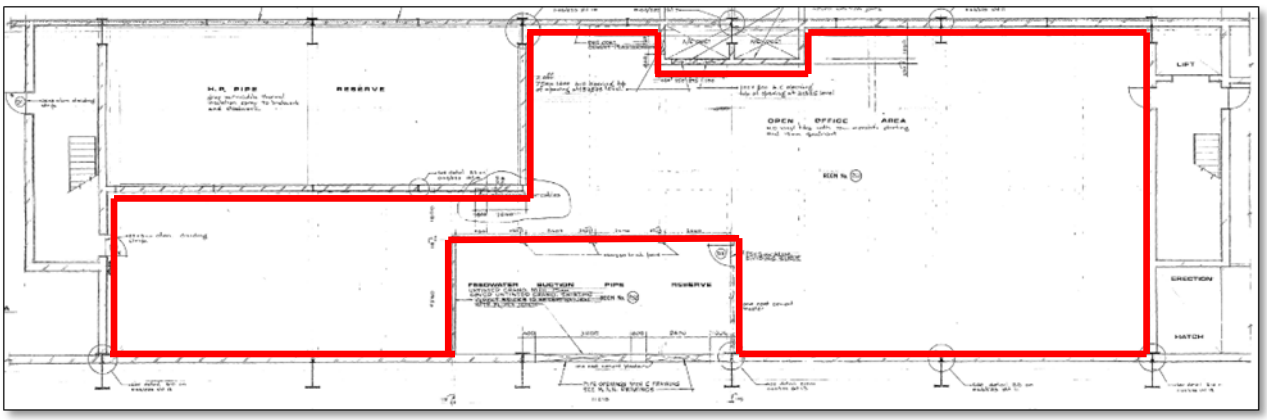


Figure 5: Location/installation of the steel frame within each unit

A stainless-steel drip trap with a scouring valve will be installed below the feed water pipeline to prevent spilled water from seeping into the 28m level. The drip trays will be secured/supported by means of steel rods that are connected to the overhead walkway/platform. In place of the scouring valve, the collected water from the steel drip tray can be connected to the drainage down pipe located in the vicinity.

To address the concerns of soundproofing, a rubber barrier (i.e., flexible, non-reinforced vinyl) will be installed over the suspended ceiling tiles. This will resist the passage of sound wave and reduce the transmission of airborne noise from the operating plant. Furthermore, soundproofing rubber seals will be installed around all access door entering the feed water suction pipe reserves.

The information presented above is to be used for costing purposes only and is in no way the detail design for the project.

3.3.1.1 *Employer's* design requirements

All designs and construction are required to be in accordance with the following *Employer's* Design Standards and relevant SANS standards:

- 240-56364545: Structural Design and Engineering Standard
- 240-107981296: Constructability Assessment Guideline
- 240-99527377: Inspection Manual for Civil Works at Eskom's Power Station
- 240-53113685: Design Review Procedure

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

3.3.2.1 General

1) The *Contractor* takes full professional accountability and liability for the *works* as described in the Works Information.

2) The *Contractor* is required to confirm and verify all information supplied by the *Employer* prior to being using in the design and/or *works*.

3) It is the Contractor's responsibility to provide design and construction, which is fit for purpose, in accordance with sound engineering principles and prudent industry practice. The *Contractor* and his subcontractors perform the *works* in compliance with legislation, rules and regulations, applicable national and international engineering codes, environmental standards, other applicable standards, statutory requirements and this Works Information.

4) No deviation from this works information and its referenced documents is permissible without documented acceptance from the *Project M*anager. The *Contractor* includes a list of exceptions and/or clarifications as part of his tender. This list of exceptions and/or clarifications includes the section deviated from as reference number, the requirement in question and a detailed explanation of the deviation. In the event of conflicts or discrepancies between any of the specifications, the *Contractor* notifies the *Project M*anager for resolution in writing.

5) The *Contractor* adheres to all design requirements, codes of standards and regulations stated in this scope of works.

6) Any discrepancy or ambiguity between the *Employer's* Specifications or requirements is to be immediately brought to the attention of the *Project Manager* for clarification.

7) Where the *Contractor* requires additional information to design or install certain components of the Plant, the *Contractor* notifies the *Project Manager* of the *Contractor's* requirements a minimum of one (1) week before continuing with the works.

8) All documentation, as specified in this Works Information, forms part of the *works* and is supplied to the *Project Manager* by the *Contractor*. The *Employer* reserves the right to issue the *Contractor's* design or drawings to other *Contractors* for purposes of maintenance, spares, verifications, modifications in future or any other purposes required by the *Employer*. The *Employer* has total rights to use the design, as the *Employer* requires. The *Contractor* notes that all drawings and other documentation supplied to the *Employer* become the property of the *Employer* upon completion of the works.

3.3.2.2 Civil & Structural Requirements

3.3.2.2.1 Protection System

1) The *Contractor* is required to design and install a protection system (e.g. stainless steel wire mesh, debris netting) or similar approved above the existing suspended ceiling location on the 28m level of the Auxiliary Bay area. The proposed protection system is to be installed across all six Units on the 28m level.
2) The protection system is to be designed to resist the imposed loads from falling objects as illustrated in Table 1 and accessible loads for employees to retrieve any fallen objects as per SANS 10160 - Part 2. Note that the information presented in Table 1 are typical objects that have fallen through the suspended ceiling.

Table 1: Proposed fallen objects

Items	Dimensions	Weight	Fallen Height
Scaffolding members (e.g., bracings, screw jack)	1 500mm tube (4 mm thick)	Varies: 1-20 kg	3 m
Pieces of metal steel	300 mm x 150 mm	1 kg	3 m
Masonry bricks	220 x 110 x 70 mm	2.3 kg	3 m
Handheld tools	Varies	Varies: 0.1 – 5 kg	3 m

3) The *Contractor* designs and incorporates a safe recovery system, in the proposed protections system, for the recovery/removal of fallen items at have been captured.
4) The *Contractor* designs a suitable anchorage system for the protection system and conducts a structural assessment/verification to confirm that the structural integrity of the supporting infrastructure is not compromised by the protection system.
5) If a cable mesh is being utilised for the protection system, the size of the mesh opening should prevent small objects (e.g. bolts, handheld tools, etc.) from penetrating through the ceiling. Maximum size of cable opening is to be 20 mm.
6) The proposed protection system is to allow for the integration of the main steam pipework and steel straps supporting the suspended ceiling.
7) The C*ontractor* is required to conduct a constructability assessment to determine the most optimal method of installing the protection system with the least amount of damage or interference with the existing systems.
8) The *Contractor* develops and submits the constructability assessment report to the *Project Manager* for review and acceptance. Refer to Section 3.3.4.5 for further requirements on the constructability analysis.
9) During the installation of the protection system, the *Contractor* is required to support the suspended ceiling during the installation of the protection system. Any steel straps, supporting the suspended ceiling, that are removed is to be reinstalled and attached to the roof structure of the Auxiliary Bay area.
10) The *Contractor* is to prevent galvanic corrosion of dissimilar metals that are utilised in the protection system. This can be achieved by the use of anti-corrosions paint (in accordance with 240-106365693: Standard for the External Corrosion Protection of Plant, Equipment and Associated Piping with Coatings) or similar approved method.
11) Prior to the installation of the protection system, the *Project Manager* will ensure that the employees utilising the office space are relocated. This activity will be guided based on the method statement (i.e. sequence of activities) submitted by the *Contractor*.
12) The *Contractor* takes necessary precaution not to damage any office equipment and furniture located on the 28 m level. Such preventative measures are to be included in the method statement.

3.3.2.2.2 Soundproofing

1) The *Contractor* is required to install a soundproofing material/barrier (e.g. flexible, non-reinforced vinyl or similar approved) above the suspended ceiling to prevent noise from entering the office facility (28m level).
2) A soundproofing rubber seal or similar approved is to be installed around all access door entering the feed water suction pipe reserves located on the 28m level.
3) Prior to the installation of the soundproofing material, all dust, debris and dirty accumulated on the suspended ceiling is to be removed and clean. All preparation works and installation procedures are to be followed as per the datasheet/suppliers instructions.
4) The *Contractor* submits all datasheets for the proposed soundproofing material to the *Project Manager* for review and acceptance prior to being used on for the *works*.

3.3.2.2.3 Drip tray

1) The *Contractor* is required to install a stainless-steel drip tray below the feed water pipeline to intercept any spillages during maintenance activities of the pipeline.
2) The installed drip tray is to be sloped to facilitate the removal of the collect water.
3) A scouring valve is to be installed at the lowest elevation of the drip tray.
4) The *Contractor* designs and installs a rigid support/anchorage system for the trip tray.

3.3.2.3 Electrical Requirements

1) If required, the *Contractor* shall disconnect, remove and store the lighting fixtures and/or associated cabling to allow the construction of the protection system.
2) The *Contractor* shall assess the need for temporary lighting during the construction phase and make provision as required.
3) The *Contractor* shall re-instate the lighting fixtures as per the original installation.
4) The installation shall conform to SANS 10142-1 and the *Contractor* shall issue a COC for each circuit that was worked on.

3.3.2.4 C&I Requirements

1) Should a need arise to remove the ceiling during the construction of the protection system, any work on the Fire Detection and Alarm system shall be executed by a person registered with South African Qualifications Certification Committee (SAQCC). The Contractor shall subcontract an Original Equipment Manufacturer approved partner. The Fire Detection System subcontractor shall be responsible for the removal, storage, installation and loop testing of fire detectors.
2) The *Contractor* shall remove and store ceiling speakers when the ceiling is removed during the construction of the protection system and re-install the speakers on the new ceiling and perform functional testing to ensure the ceiling speakers are functional.
3) An impairment is to be registered whenever an area will not be covered for a period longer than 8 hours as per the Managing of Fire Protection System impairments.

3.3.2.5 Mechanical Requirements

1) All sections of the air-conditioning ducts are suspended on thin straps to the roof structure. Due to the construction of these ducts, the distances between these straps must be maintained to support the ducting. Failure to do so, will results in some duct caving in and resting on the ceiling boards, causing them to fail.
2) The ducting system must remain in the same position due to the following reasons:
    - These duct are lined and may not be easy to find suitable materials should they need to be extended.
    - Relocating of any ducting system will cause unbalanced air flow in those ducts. To correct this a redesign of this ducting will be required to determine the new duct sizing of the main and the branching pieces.
3) Air heating elements are mounted inside these ducts. Care must be taken to avoid damaging the electric cables supplying these heaters
4) Contractor to take care when removing. Any damaged ductwork to be replaced by the contractor with technical equivalent accepted by the client.
5) Solvent, to be used to clean the ducting, is to be approved by the *Project Manager* prior to being used (i.e. *Contractor* to submit data sheets for approval before cleaning the ductwork).
6) *Contractor* is to submit a method statement, for *Project Manager's* approval, for the installation, cleaning, installation and commissioning of the ductwork.
7) All supports and fixing accessories are to be provided, where current supports are deemed unfit for further use.
8) Joints between duct sections needs be sealed with a joint sealant accepted by the client before installation of the ductwork.
9) The Contractor will be required to co-ordinate with others to ensure equitable sharing of service reserves and to ensure that the building contractor is notified timeously of any accesses required through ceilings or walls for balancing or servicing of this system. Any building work resulting from the air-conditioning contractor's default in this respect will be for the air-conditioning contractor's account.

3.3.2.6 Production of As-Built Information required for the Works

1) In the event that the existing baselined designs for the Auxiliary Bay area (28m level) has been altered/modified during the project, the *Contractor* is required to produce as-built drawings indicating all modifications and replacements which have occurred.
2) Refer to Section 3.3.3 for documentation and drawing requirements
3) All as-built drawings issued to the *Project Manager* will be a minimum of one (1) hard copy (A0 in size) signed by the responsible professionally registered structural engineer/technician and in electronic format. The *Contractor* submits electronic drawings in AUTOCAD or MicroStation (DGN) format and

scanned drawings in pdf format. Drawings issued to the *Employer* may not be “Right Protected” or encrypted.

3.3.3 Procedure for submission and acceptance of *Contractor’s* design

3.3.3.1 Document identification

1) All documents supplied by the *Contractor* are subject to the *Employer’s* approval. The language of all documentation is required to be in English.
2) The *Contractor* adheres to the following standards:
    - Documentation Management Review and Handover Procedure for Gx Coal Projects (240-66920003).
    - Project / Plant Specific Technical Documents and Records Management Work Instruction (240-76992014)

3.3.3.2 Document Submission

1) All project documents must be submitted to the delegated *Employer’s* Representative with transmittal note according to Project / Plant Specific Technical Documents and Records Management Work Instruction (240-76992014). In order to portray a consistent image it is important that all documents used within the project follow the same standards of layout, style and formatting as described in the Work Instruction.
2) The *Contractor* is required to submit documents as electronic and hard copies and both copies must be delivered to the *Employer’s* Representative with a transmittal note.

3.3.3.3 Email Subject

1) The *Contractor* submits all documentation to the *Employer’s* Representative in the following media:
    - Electronic copies that are too large for email are delivered on CD/DVD, large file transfer protocol and/or hard drives to the Project Documentation Centre. In a case where CD has been submitted, a notification email, with the transmittal note attached, is sent to the project generic email address. The Representative is copied on the email as well.
    - Hard copies are submitted to the *Employer’s* Representative accompanied by the Transmittal Note.

3.3.3.4 Drawings Format and Layout

1) The creation, issuing and control of all Engineering Drawings will be in accordance to the latest revision of 240-86973501 - Engineering drawing Standard.
2) Drawings issued will be a minimum of one hardcopy and an electronic copy in both pdf and DGN. format.
3) Drawings issued may not be “Right Protected” or encrypted.

3.3.3.5 Documentation Review Requirements

1) The Contractor submits all documentation to the *Project Manager* for acceptance. The *Project Manager* reviews the *Contractor’s* submitted documents in accordance with the *Employer’s* Design Review Procedure (240-53113685).
2) The *Contractor* conducts design reviews of the *Contractor’s* design as per the *Contractor’s* official design review procedure. The *Contractor* ensures adherence to the Scope of Work and that a technically sound design approach is followed in carrying out the designs.
3) The designs submitted are complete packages with all elements (all related drawings and design reports) included in order for the *Project Manager* to review as a whole.
4) The *Contractor* takes note of the *Employer’s* Design Review Procedure (240-53113685) and participates in all design reviews as specified by the *Project Manager*. The *Project Manager* may “Accept”; “Accepted with Comments” or “Not Accepted with Comments”. If required, the *Contractor* makes the necessary revisions on the documentation and ensures acceptance is obtained from the *Project Manager*. All designs, drawings and specifications must be reviewed, accepted and frozen before manufacturing and construction of the relevant plant item starts.

3.3.4 Other requirements of the *Contractor's* design

3.3.4.1 Temporary *Works*

1) The *Contractor* designs all temporary works necessary to execute the *works* in accordance with the applicable codes and standards as stated in this document and as required by good engineering practices
2) The *Contractor*'s appointed ECSA professionally registered engineer/technologist:
    - Reviews and approves (by signature) the designs and drawings of all temporary works and additional supports and method statements produced by the *Contractor*; and
    - Supervises, inspects and approves the works as per such.
3) All temporary works designs, where existing infrastructure are impacted by the works, are submitted to the *Project Manager* for review and acceptance, to prove that the existing infrastructure can withstand the induced load. The *Contractor* therefore submits all design calculations, in a design report, which includes, but is not limited to, all inspection reports, survey data, design analysis models, assumptions, drawings/sketches, etc.
4) The *Contractor* takes full professional accountability and liability for all temporary items required for the execution of the works.
5) The *Contractor* designs, procures, manufactures and constructs all temporary works required for the execution of the works. The Contractor dismantles/demolishes temporary works when such works are no longer required.
6) The *Contractor* takes note that review and acceptance of any document/ drawing/ design calculations by the *Project Manager* in no way relieves the *Contractor* of his liability for the works. The *Contractor* remains liable for all *works* conducted as per this Works Information.

3.3.4.2 Plant and Material Supply

1) The *Contractor* provides all tools and equipment for the handling of material and the proper execution of the *works*.
2) The *Contractor* takes reasonable care to ensure that equipment used does not cause damage to any existing infrastructure. In the event that such damages do occur to the surrounding infrastructures, the *Contractor* is responsible for repairing such damages and is liable for all costs associated with the repairs.
3) The *Contractor* is to supply, deliver, offload and temporarily store (as may be required) all materials needed to carry out the *works*.

3.3.4.3 Storage Facilities

1) The *Contractor* is to make his own arrangements with regard to storage facilities and laydown areas that are required to complete the works. All laydown areas on *Site* are as per agreement with the *Project Manager*.
2) All storage facilities (Plant, Material and Equipment) will be within the boundaries of the *Site* in order not to affect the operations of *Others*.

3.3.4.4 Method Statement

1) This Method Statement clearly illustrates how the *Contractor* accounts for the risks of this project and is tailored to address the specified project objectives and requirements.
2) The Method Statement includes, as a minimum and where applicable, the following:
    - Constraints identified and considered by the *Contractor*.
    - Interfacing with Others; the Contractor illustrates an understanding of the work that is to be completed by Others and accommodates for the completion of such work in his methodology.
    - Description and illustrations of a construction traffic plan, use of laydown areas and plot plan.
    - Shifts and hand overs for the various sections of the works, this information is to enable the *Employer* to integrate the programmes of the various contractors.
    - Design tools and systems that the *Contractor* plans to use.
    - Construction methodology and sequence of construction taking into consideration access restrictions and safety requirements.
    - Detailed risk assessment which lists risks specific to the works and is accompanied with associated proposed mitigations.

- List and description of plant and machinery required to carry out the civil and structural components of the works.
- Inspection and quality control plan.
- A clear description of the responsibilities of the Contractor's personnel involved with the works, including (where applicable) his Project Manager, Site Quality Manager, Site Engineer, Health and Safety Manager, Technical Office Manager, Production Manager, Supervisor, Environmental Officer, Fabricator, Erection Engineer, Shop detailer, Transporter and other personnel required for the civil and structural works.
- Construction sequencing considerations, which take into account any constraints.
- Health, safety and quality control for the activity.
- All plant, equipment and machinery required to complete activity.
- Manufacturer's literature/ Technical Data Sheets for all materials used including product description, composition, material and performance properties, installation and application procedures, use limitations and recommendations.
- Plan for confining, collecting and disposing of waste materials as a result of removal operations, where applicable.
- Works required to safeguard existing infrastructure and services.

3) The *Contractor* submits a new Method Statement, a month prior to commencing with any construction activities and after Contract Award, which covers all the aspects listed above, and any additional requirements or changes arising from negotiations or clarifications, for acceptance by the Project Manager. This Method Statement is to include interfaces with *Others*. This new method statement includes a sequential erection procedure which clearly shows detailed consideration for stability requirements of the structure (if applicable) at all stages during erection.

3.3.4.5 Constructability Analysis

1) The *Contractor* uses the *Employer's* standard: 240-107981296, Constructability Assessment Guideline to perform the constructability analysis.
2) The *Contractor* has a structured process in place for constructability analysis, for the optimum use of construction knowledge and experience in planning, design, procurement, and field operations to achieve the *Employer's* objectives.
3) Qualified people with adequate skills in construction knowledge and experience are involved from the beginning of the project, to maximize the benefits of the constructability analysis. This process includes examining design options, where applicable, that minimize construction costs while maintaining standards of safety, security, quality, cost and schedule, and is initiated in the front end planning process. The Contractor considers various phases of the project and demolition activities, where applicable, that includes manpower plans, organization, construction equipment usage, material storage and handling and preparation of construction facilities.
4) The *Contractor* submits a Constructability Analysis Report, based on the Method Statement, to the *Project Manager* for review and acceptance. The report is to clearly indicates how the *Contractor* takes into account interfaces with other C*ontractors* where applicable, together with the Site and time constraints. This report clearly illustrates how the construction would be completed within the allowable timeframes and highlights the risks of meeting this requirement. The *Contractor* is required to plan his activities to avoid the following interface risks and any other risks relevant to the works:
    - Interface issues arising from working in close proximity to Others;
    - Access to Site;
    - Material storage;
    - Delivery;
    - Other Works related risks;
5) This report clearly illustrates the construction sequencing and durations for the completion of the works within the contract period. The *Contractor* submits a risk assessment as part of the Work Method Statement, which is informed by the Constructability Analysis Report that advises on a proposed approach and methodology to mitigate risks described above and any other risks, which may impede successful execution of the works.

3.3.4.6 Handover

1) Apart from any statutory data packages required, the *Contractor* also submits a data package of the relevant drawings, test certificates etc. to the *Project Manager* for acceptance. These include, but are not limited to:

- Approved ITP's, QCP's
- Method statements and specifications adhered to
- Risk assessments
- Approved drawings
- Inspection reports
- Notifications
- Modifications
- Technical Queries, Engineering Responses and communications with *Project Manager*/*Employer*
- Non-conformance reports
- Transport notifications
- Calculations for any temporary works that may be required for the safe execution of the works
- Material certificates and datasheets
- As-built data and drawings of the completed works upon handover. As-built drawings are submitted in PDF and native CAD formats.

3.3.4.7 TENDER RETURNABLES

The *Contractor* is ensure that the following tender returnable are provided to the *Employer*:

- 240-105658000 (QM 58) Supplier Quality Management: Specification Specifying Eskom supplier quality requirements. Tenderer to comply with the selected requirements as per category 3.
- 240-68099512 FORM A: Tender & Contract Quality Requirements For QM 58 and Quality Requirements For ISO 9001 Standard. Tenderer to complete and sign form A.
- 240-1228652 List of Tender Returnable Document. Tenderer to submit all tender returnable for section A, B and C, D & E as per list category 3.

3.3.4.8 DELIVERABLES

The *Contractor* provides the following document deliverables as part of the *works*.

3.3.4.8.1 Planning phase

1) A Level 3 schedule (schedule with defined activities) for the design scope clearly highlighting all activities involved, major milestones and provision.
2) Design methodology for the works.
3) Risk Assessments.
4) Project specific safety file.
5) Project Quality Control Plan.
6) Detailed Risk Assessments (updated)

3.3.4.8.2 Design Phase

1) Consolidated technical detailed design report signed by a Professional Engineer/Technologist which includes:
    - Survey drawings, design criteria/parameters, specifications and standards that were used, loadings, assumptions, calculations and results including detailed design calculations, design models, sources of information and any record of other information associated with the completed works.
2) Detailed drawings for construction signed by a Professional Engineer/Technologist. Drawings are to be submitted in CAD formats (.DGN).
3) Detailed constructability analysis report for the execution of the works.
4) Bill of Quantities
5) Construction Specification
6) Progress reports

3.3.4.8.3 Pre-Construction/Installation

1) Detailed method statements for the works
2) Inspection and Test Plans (ITP's) indicating all intervention points
3) Quality Control Plans (QCP's)

4) Construction Programme/schedule
5) Project Specific Safety File (updated)
6) Any temporary works required as part of construction signed by a professionally registered Structural Engineer/Technician
7) Detailed Risk Assessments (updated)
8) Process reports

3.3.4.8.4 Post Construction/Installation

1) QA returnables (monthly)
2) As-Built drawings
3) Data books as detailed in Section 3.3.4.6.
4) Operation and Maintenance (O&M) manual. The O&M manual shall at minimum cover the following items:
    - Cleaning/removal of debris or fallen objects on the net system
    - Instructions on rescue of persons from the net
    - Inspections procedures: type of ongoing net inspections, inspection regime, etc.
5) Certificate of completion, signed by the ECSA registered engineer/technologist, confirming that the works has been constructed in accordance with the design.

3.3.5 Use of *Contractor's* design

All documentation, as specified in this Works Information, forms part of the *works* and is supplied to the *Project Manager* by the *Contractor*. The *Employer* reserves the right to issue the *Contractor's* design or drawings to other *Contractors* for purposes of maintenance, spares, verifications, modifications in future or any other purposes required by the *Employer*. The *Employer* has total rights to use the design as the *Employer* requires. The *Contractor* notes that all drawings and other documentation supplied to the *Employer* become the property of the *Employer* upon completion of the *works*.

3.4 Procurement

There is a cross reference from the definition of Disallowed Cost in Options C D and E to the Works Information regarding procurement procedures. This part of the Works Information MUST include any such procedures to be able to administer this procedure. Options A & B may also require constraints on procurement procedures.

3.5 Supplier Development Localisation and Industrialisation (SDL&I) requirements

3.5.1 Section 1: Pre-qualification Criteria for Preferential Procurement

SD&L will apply the following pre-qualification criteria as envisaged in PPPFA 2017 regulation 4

	YES	NO
a) Minimum BBBEE status level of contributor?	☐	☑
If *Yes,* what is the BBBEE status and/or level required		

	YES	NO
b) Is there BBBEE category targeted for this enquiry?	☐	☑
If *Yes,* BBBEE category		

NOTE1: Tenders must submit the following Returnable for B-BBEE Category:

- A **Certified** Copy of a Valid B-BBEE Certificate issued by a SANAS accredited Verification Agency, **or**
- A **Certified** Copy of a fully completed Sworn Affidavit for either EME or QSE **(See key notes below on**

2.3), **or**

- A **Certified** Copy of B-BBEE Certificate issued by CIPC for EMEs' only, **or**

NOTE 2: Joint Ventures can only submit a Consolidated, Valid and Certified Copy of B-BBEE Certificate issued by a SANAS Accredited Verification Agency specific for this tender.

In addition, the following documents must be submitted (**Non-Mandatory**):

- tenderers shall submit certified copies of CIPC registration documents.
- Certified Identity Document(s) of Company Shareholders or Members.
- Certified copy of Shareholders certificate [for Pty (Ltd) entities].

	YES	NO
c) Minimum subcontracting requirement for this?		☑
If *Yes,* what is the minimum percentage?		

Tender Returnable if the above element is a requirement.

- Letter of intent or any other requested document indicating commitment and the percentage required must be submitted as a tender returnable.
- Sub-contracting can only be concluded with the following entities:
  - an EME or QSE which is at least 51% owned by black people;
  - an EME or QSE which is at least 51% owned by black people who are youth;
  - an EME or QSE which is at least 51% owned by black people who are women;
  - an EME or QSE which is at least 51% owned by black people with disabilities;
  - an EME or QSE which is 51% owned by black people living in rural or underdeveloped area or townships;
  - a cooperative which is at least 51% owned by black people;
  - a EME or QSE which is at least 51% owned by black people who are military veterans

3.5.2 Section 2: Mandatory Requirements

2.1 Designated Sectors

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

	YES	NO
a) Is this Commodity or part of it a Designated Sector?	☑	☐

Please indicate below Designated Components

Commodity	Components	Local Content Threshold
Valves	Gate Valves (Scour valves)	70%
Fasteners	Bolts, nuts, rivets and nails	100%
Gutters, downpipes& Launders	Fabricated materials made from sheeting associated with roof drainage systems.	100%
Wire product	All fencing products: all barbed wire and mesh fencing, fabric/mesh reinforcing, gabions, wire rope/strand and chains,	100%

	welding electrodes, nails/tacks, springs and screws.	

NOTE 1: SBD 6.2 Declaration Form and Annex C (Local Content Declaration-Summary Schedule) is therefore **mandatory** and must be a tender returnable. Forms must be completed in full and signed.

If the quantity of materials and/or products cannot be wholly sourced in South Africa, **the DTI,** in consultation with the procuring entity, will grant exemption on a case-by-case basis. **Bidder should request and obtain written exemption from the Department of Trade and Industry (DTI).** Such exemption applications should be submitted, and approvals should be obtained prior to the closure of the bid(s) concerned. **The DTI** in consultation with the procuring organ of state and the local industry will consider the exemption application on a case-by-case basis. Bidder should refer to national treasury Designated Sector Instruction Number 12 of 2016/2017 Paragraph 4.2.

NB: A tender that fails to meet the minimum stipulated threshold for local production and content will be disqualified.

3.5.3 Section 3: Mandatory Compliance for Contract Award

The following requirements are mandatory compliance for contract award and submissions can be clarified during evaluations or negotiated before contract is awarded

3.1 CIDB Skills Development

	YES	NO
a) Is there CIDB compulsory training?	☑	☐
If *Yes,* what is the% of the Construction Skills Development Goal % (CSDG)	**0.375%**	

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

Criteria	Eskom Target	Tenderer Commitment
CSDG Percentage	**0.375%**	
Description	**5CE**	

Skills Development

	YES	NO
Are there Skills Development targets?	☑	☐

Eskom's Target				Tenderer Proposal			
Category	Entrance	Exit	Number	Category	Entrance	Exit	Number
Civil Technician	N5	N6	2				

If Yes, the contractors are required to propose skills development against Eskom's targets.

3.2. BBBEE Compliance

	YES	NO
Is there minimum BBBEE level targeted?	☐	☑
If *Yes,* what is the BBBEE status targeted for this transaction (contractor/s will be required to submit plans to achieve		

the target level if not met at contract award)	

3.3. Subcontracting Requirements

	YES	NO
Is there a requirement for subcontracting?	☑	☐
If *Yes,* what is the targeted subcontracting percentage (ED requirements can be fulfilled through subcontracting)	25%	

3.3.1 Electrical Engineering 10%
3.3.2 C&I Engineering 5%
3.3.3 Mechanical Engineering 10%

3.4. National Industrial Participation Programme (NIPP)
Is the contract in excess of US$5 million?

	YES	NO
	☐	☑
If *Yes,* fill in the table below:		

Bid / Enquiry Number	
Description of the goods	
Date on the letter of intent to award the contract;	

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

SDLI undertakings

Note: The undertakings shall be sourced from previously disadvantaged Communities around Sedibeng and Metsimaholo District. Municipalities

3.5. Local Procurement Content

Local Procurement Content" refers to value added in South Africa by South African resources. Where a single contract involves a combination of local and imported goods and/or services, the tender response must be separated into its components as per the Price Schedule included with the tender documents. Local procurement content is total spend minus the imported component.

Local Procurement Content	**Eskom Target**	**Tenderer Proposal**
	100%	

3.6. Job Creation

Tenderer to indicate number of Jobs to be created and/or retained from this contract:

Number of Jobs to be created	**Number of Jobs to be retained**

Local pool criteria:

Type of jobs	Target set (local-to-site)	Suppliers Proposal
General workers	100%	
Semi-skilled	70%	
Skilled	30%	

3.5.4 Section 4: SDL&I Penalty and Performance Security

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

One of the following options will apply for SDL&I performance security:

- For the duration of the contract, Eskom will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon fulfilment of all SDL&I obligations at the end of the contract.
- Alternatively the Contractor shall submit a bond equivalent to 2.5% of the Contract Value and shall only be released to the Contractor upon fulfilment of all SDL&I Obligations.

3.5.5 Section 5: Reporting and Monitoring

- The suppliers shall on a monthly/quarterly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- Eskom shall review the SDL&I reports submitted by the suppliers within 60 (sixty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.
- Upon notification by Eskom that the suppliers have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.
- The SDL&I Implementation Schedule, which must be completed by the suppliers and returned to SDL&I representative for acceptance 30 days after contract award, shall accompany every contract.

3.5.6 Section 6: Market Research

The following information demonstrates market analysis and assisted in arriving at the targets above.	
Current Suppliers Providing the Services	Potential Suppliers
Central supplier database	Central supplier database
CIDB database	CIDB database

3.5.7 Section 7: Reporting & Monitoring

The suppliers shall on a monthly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above. Eskom shall review the SDL&I reports submitted by the suppliers within 60 (sixty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.

Every contract shall be accompanied by the SDL&I Implementation Schedule which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments.

3.5.8 Section 8: General Information on Validity of Sworn Affidavits

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

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

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

3.6 Plant and Materials Supply

(1) The *Contractor* provides all tools and equipment for the handling of material and the proper execution of the *works*.
(2) The *Contractor* takes reasonable care to ensure that equipment used does not cause damage to any existing infrastructure. In the event that such damages do occur to the surrounding infrastructures, the *Contractor* is responsible for repairing such damages and is liable for all costs associated with the repairs.
(3) The *Contractor* is to supply, deliver, offload and temporarily store (as may be required) all materials needed to carry out the *works*.

3.7 Construction

3.7.1 General

The *Contractor*:

1) Adhere to the South African Environment Protection Act, the waste management code of practice and the South African Occupational Health and Safety Act No. 85 of 1993, the regulations promulgated thereunder and Eskom Safety, Health, Environment and Quality (SHEQ) Policy 32-727 and Waste Management Procedure, as well as the National Building Regulations and SANS 10400 for all works.
2) Submits a comprehensive method statement (including a comprehensive risk assessment) detailing the proposed methods for the entire works to the *Project Manager* for acceptance prior to the start of the works. Refer to Section 3.3.4.4 for method statement requirements.
3) Submits a project specific safety file to the *Project Manager* for comments / acceptance.
4) Submits a detailed level 3 schedule for the *works* to the *Project Manager* for acceptance after contract award.
5) Takes all necessary precautions to ensure that none of the existing structures / facilities not forming part of the *works* is damaged during the assessment/inspection. The *Contractor* is liable for all damages that may occur and repairs are to be done at no additional cost to the *Employer*.
6) The *Contractor* disposes of all waste material at the waste disposal facility on site as per the instruction and direction of the *Project Manager*.
7) Continuously monitors the conditions within the working and surrounding areas for any hazardous substances or situations, and in such case, the *Contractor* is required to take necessary precautionary measures.
8) The *Contractor* ensures that a complete QCP, risk assessment, method statement and ITP's, temporary works calculations, where applicable are submitted to the *Project Manager* for review and acceptance before the works can commence. During reviews of the ITP's, the Employer provides the necessary intervention points.
9) All items that are assembled and constructed off site are listed and provided to the *Project Manager*. From this, an ITP is developed between the *Project Manager* and the *Contractor* to determine the intervention points.
10) Manages access to the working areas and the Site.
11) Manages activities on Site to ensure that no interference takes place between the *works* and that of others.
12) Liaise with the *Project Manager* regarding utilities and telephone facilities required for his site establishment.
13) Liaises with the *Project Manager* regarding the location of waste disposal sites and rubbish dumps.
14) The *Contractor* is responsible for the design and erection of all the temporary supports required for the *works*. In addition to the aforementioned, the *Contractor* adheres to the following:
    - The *Contractor* is restricted to the designated working areas
    - The *Contractor* is not to enter any other areas and ensures that his employees abide by the applicable regulations
    - The *Contractor's* Equipment does not impair the operation or access to the plant/building
    - The *Contractor* provides any temporary or expendable materials required for the storage of materials
    - The *Contractor* safeguards and secures all items whilst in the *Contractor's* custody and control, until completion of the works;
    - Plant and equipment not forming part of the *works* are not to be modified without written permission from the *Project Manager*. Modification in this sense includes, but is not limited to the following:
        - Welding onto existing plant,
        - Drilling into structural steel or concrete,
        - Cutting or removing
        - Loading adjacent structures.

3.7.2 Construction, Erection and Monitoring

1) The *Contractor* is responsible for the construction of all *works* in accordance with the accepted designs, drawings and specifications.

2) The *Contractor* is responsible for the safety of all personnel involved in the *works* as well as the safety of all personnel at Lethabo Power Station affected by the construction of the *works*.
3) The *Contractor* is required to confirm all site dimensions, levels and cast-in items positions on site prior to any fabrication of steel members.
4) The *Contractor* notifies the *Project Manager* of any defects that have occurred or are foreseen in order to reduce further damages that may occur.
5) The *Contractor* is responsible for the design, erection, maintenance and removal of all temporary works required for the execution of the *works*. Refer to Section 3.3.4 for requirements for temporary works.
6) The Contractor provides the required level of construction monitoring in order to ensure that the construction is completed in accordance with the approved designs, drawings and specifications.
    - Technical quality assurance during construction to ensure that the construction is executed as per the approved design, specifications and procedures
    - Witnessing and approval (by signature) of intervention points where applicable to Engineering
    - Review and acceptance by signature of construction data books, as-built drawings and Operations and Maintenance manuals (where applicable) developed by the Contractor
    - Responding to technical queries and clarifications from the Contractor utilising documentation templates provided by the Employer
7) The *Contractor* takes full professional accountability and liability for all temporary items required for the execution of the works.

3.8 Plant and Materials standards and workmanship

3.8.1 Civil engineering and structural works

3.4.1.1 Applicable Standards

1) All references to standard/codes/publications are to be the latest issue of each, together with the latest additions and/or amendments thereto, as of the date of contract, unless otherwise indicated. This list is not all-inclusive and shall not relieve the *Contractor* from complying with all applicable codes.

Number	Title
240-85549846	Standard for Design of Drainage and Sewerage Infrastructure
240-86973501	Engineering drawing Standard
240-107981296	Constructability Assessment Guideline
240-99527377	Inspection Manual for Civil Works at Eskom's Power Station
240-86973501	Engineering drawing Standard
240-53113685	Design Review Procedure
240-53665024	Engineering Quality Manual
240-53114186	Document and Records Management
240-105658000	Supplier Quality Management Specification
32-245	Eskom Waste Management Standard
32-727	Eskom Safety, Health, Environment and Quality (SHEQ) Policy
OHS Act 85 of 1993	Construction Regulations, 2014
SANS 10400	The Application of the National Building Regulations
SANS 791	Unplasticised poly(vinyl chloride) (PVC-U) sewer and drain pipes and pipe fittings
SANS 677	Concrete non-pressure pipes
-	SANRAL Drainage Manual
SANS 10400	Building Code

3.4.1.2 Additional Requirements and Pre-requisites

1) The *Contractor* is required to confirm all site dimensions, levels and cast-in items positions on site prior to any fabrication of steel or casting of concrete
2) The *Contractor* is required to submit a comprehensive method statement of the works to the *Project Manager* for acceptance prior to the start of the works
3) Any request for deviation from specified requirements are submitted in writing and include the proposed deviation, rationale for the deviation, any technical data supporting the deviation, and historical experience supporting the deviation.

4) Combining or mixing of different codes is not permitted
5) The *Employer* will arrange a mandatory site clarification meeting with all tenderers so that tenderers are afforded the opportunity to visually inspect the works to be done.

3.4.1.3 Structural Steelwork

1) All work is required to be in accordance with the latest edition of SANS 2001-CS1
2) The *Contractor* is responsible for the stability of the entire structure and all structural elements during all the erection stages.
3) All dimensions are required to be verified on site by the *Contractor* before any fabrication of steelwork commences.
    - Design loading is in accordance with SANS 10160, and structural steel design is in accordance with SANS 10162.
4) All structural steelwork to be in accordance with SANS 50025-2/ EN 10025-2 grade S355JR, for hot rolled sections & structural plate work. Cold formed sections to be commercial quality steel (Fy=200MPa).
5) Fabrication, workmanship etc. to be in accordance with SANS 2001 and 1200, where applicable.
6) Grade 8.8 bolts are used throughout.
7) Where H.S.F.G. bolts are used, they must be tightened as specified in SANS 10094 using the "turn of nut method".
8) Once tightened, the H.S.F.G bolt cannot be re-used & must be discarded.
9) Hardened washers are to be used with high tensile bolts & H.S.F.G bolts.
10) Tapered washers are to be used where required.
11) The *Contractor* is required to supply all structural steel elements, bolts, washers, nuts etc. for the structural steelwork.
12) All welding is required to be conducted by coded welders. Supporting documentation is also required to be submitted to the *Project Manager* for acceptance.
13) Welding to be carried out in accordance with ANSI/AWS D1.1 (all welds 6mm cont. fillet) U.O.N.
14) All welds are required to be inspected using visual aids
15) Welding on site should be avoided if possible.
16) Welded end plates to be used in end connections where possible. Welded connections are required to be welded all around with a minimum of 6 mm fillet welds or the appropriately designed fillet weld size. Butt welds are required to be full penetration welds.
17) No deviation from member sizes, dimensions or setting out points unless permission has been obtained from the *Project Manager* in writing.
18) All steelwork to be colour coded, if specified on arrangement drawing and the No. to be indicated in white paint.
19) *Contractor* to supply temporary bracing as required for safe transportation & erection.
20) Fabrication drawings to be submitted per level upon completion of each associated level to the *Project Manager* for review and acceptance prior to fabrication.

The table below indicates specifications pertaining to SANS 2001-CS1 and must be read in conjunction with the code.

Clause	Particular Specification
4.1	**Materials**
4.1.1	Add the following: All structural steelwork is required to be grade S355JR
4.1.4.1	Electrodes for electric welding are required to be E7018.
4.1.5.1	Bolt grade 8.8 is required as a minimum
4.6	**Workmanship - Erection**
4.6.5	On site welding is not permitted
5.3	**Non-destructive testing of welds**
5.3.3	Fillet welds are required to undergo magnetic particle inspection (20 % of welds)
5.3.4	All butt welds and full penetration welds are required to undergo ultrasonic non-destructive testing (100 % of welds)

3.4.1.4 Corrosion Protection

1) Corrosion protection is required for all steelwork in accordance with 240-106365693: Standard for the External Corrosion Protection of Plant, Equipment and Associated Piping with Coatings.
2) The Contractor submits the proposed corrosion protection measures to the Employer for approval.

3.9 List of drawings

3.9.1 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
0.63/216	5	Turbine House – Auxiliary Bay Cross Section
0.63/216	11	Auxiliary Bay Unit 1 Longitudinal Section C-C
0.63/682	7	Auxiliary Bay Unit 1 Longitudinal Section C-C Loading Diagram
0.63/5873	2	Auxiliary Bay Unit 3 Longitudinal Section
063/2353	7	Auxiliary Bay Unit 1 – 28 m level Plan and Section
063/9041	5	Auxiliary Bay Unit 4 – 28 m level Plan and Section
063/11126	5	Auxiliary Bay Unit 5 – 28 m level Plan and Section
063/11141	5	Auxiliary Bay Unit 6 – 28 m level Plan and Section

3.9.2 Standards issued by the *Employer*

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

Document number	Revision	Title
240-53113685	3	Design Review Procedure
240-56364545	-	Structural Design and Engineering Standard
240-107981296	1	Constructability Assessment Guideline
240-86973501	3	Engineering drawing Standard
240-76992014	1	Project / Plant Specific Technical Documents and Records Management Work Instruction

Part 4: Site Information

Document reference	Title	No of pages
	This cover page	1
C4	Site Information	11
	Total number of pages	12

PART 4: SITE INFORMATION

4.1 Information about the site at time of tender which may affect the work in this contract:

4.1.1 Site Procedures and Regulations

4.1.1.1 Site location and Security

- The Site is at Lethabo Power Station situated ± 18 km South of Vereeniging on the Viljoensdrift - Deneysville Road, Free State. Access to the site will be via the main security gate only.
- The *Employer* will inform the *Contractor* of the access procedures, and it should be expected that such procedures may change depending on the prevailing security situation.
- The *Contractor* to allow in his price and program for delays at the security gate. The *Employer* reserves the right for its Security personnel to search persons or vehicles entering or leaving the premises. This includes, but is not limited to briefcases and toolboxes.

4.1.1.2 Temporary Gate Permits

- The *Contractor* provides the *Employer* with the personal details of their staff at least two days prior to the occupation date. All names and details to be submitted to the *Employer* who arranges for all gate permits.

4.1.1.3 Occupational Health and Safety Induction Course

- All the employees of the *Contractor* must attend a health and safety induction course provided by the *Employer* at the security offices before they will be allowed to work on the Site. It is the responsibility of the *Contractor* to ensure that all employees have attended the health and safety induction.
- The Induction course includes an awareness on the Error prevention and Improvement tools and techniques to ensure familiarisation and use of these error-prevention tools/techniques inclusive of, Pre and Post-job briefs, Risk Assessments, Self-checks (STAR principle), Peer Checks, Job observations, Accountability, Effective communications e.g. 3- way, Questioning attitude, Procedural adherence, Hand overs and other.

- A list of employees requiring safety induction must be submitted at least 2 days in advance arrival so that the details of the safety and health induction course can be communicated.

4.1.1.4 Health and Safety Requirements

The *Contractor* and his sub-*Contractor*s ensure at all times compliance with safety regulations imposed by any Act of Parliament, ordinance or any regulation or by-law of any local or statutory authority. The *Contractor* acts in accordance with the health and safety requirements stated in the Works Information.

- In carrying out its obligations to the *Employer* in terms of this contract; in providing the Works; in using Plant, Materials and Equipment; and while at the Site for any reason, the *Contractor* complies and procures and ensures the compliance by its employees, agents, Sub-*Contractor*s and mandataries with:

- the provisions of the Occupational Health and Safety Act 85 of 1993 (as amended) and all regulations in force from time to time in terms of that Act ("the OHSA"); and the Eskom "Health, Safety and Environmental specifications for *Contractor*s" document attached to the Works

Information (as amended from time to time) and such other Eskom Safety Regulations as are applicable to the Works and are provided in writing to the *Contractor* (collectively "the Eskom Regulations"). The Eskom Regulations may be amended from time to time by the *Employer* and all amendments will be provided in writing to the *Contractor*. The *Contractor* complies with the provisions of the latest written version of the Eskom Regulations with which it has been provided; and the health and safety plan prepared by the *Contractor* in accordance with the SHEQ Requirements

(The OHSA and the Eskom Regulations are collectively referred to as the "SHEQ Requirements".)

- The *Contractor,* at all times, considers itself to be the "*Employer*" for the purposes of the OHSA and shall not consider itself under the supervision or management of the *Employer* with regard to compliance with the SHEQ Requirements, the *Contractor* shall furthermore not consider itself to be a subordinate or under the supervision of the *Employer* in respect of these matters. The *Contractor* is at all times responsible for the supervision of its employees, agents, Sub-*Contractor*s and mandataries and takes full responsibility and accountability for ensuring they are competent, aware of the SHEQ Requirements and execute the Works in accordance with the SHEQ Requirements.

- 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 authorized in terms thereof and who have received sufficient training to ensure that they can comply therewith.

- The *Contractor* ensures that all statutory appointments and appointments required by any Eskom Regulations are made and that all appointees fully understand their responsibilities and is trained and competent to execute their duties. The *Contractor* supervises the execution of their duties by all such appointees.

- The *Contractor* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract. The person so appointed shall, on request: supply the Eskom Safety Officer with copies of minutes of all Health And Safety Committee meetings, whenever he is required to do so; supply the Eskom Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall advise the Eskom Safety Officer of any changes thereto.

  The *Employer*, or any person appointed by the *Employer*, may, at any stage during the duration of this contract:

  - conduct health and safety audits regarding all aspects of compliance with the SHEQ Requirements, at any off-site place of work, or the site establishment of the *Contractor;*
  - refuse any employee, Sub*contractor* or agent of the *Contractor* access to the premises if such person has been found to commit an unsafe act or any unsafe working practice or is found not to be qualified or authorised in terms of the SHEQ Requirements;
  - Issue the *Contractor* with a stop order should the *Employer* become aware of any unsafe working procedure or condition or any non-compliance with any provision of the SHEQ Requirements.
  - The *Contractor* immediately reports any disabling injury as well as any threat to health or safety of which it becomes aware at the Works or on the Site to the *Employer's Representative.*

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

- The *Contractor* appoints a person, qualified in accordance with the SHEQ Requirements, as the liaison with the Eskom Safety Officer for all matters related to health and safety, this person shall be contactable 24 hours a day.

- The *Contractor* confirms that it has been provided with sufficient written information regarding the health and safety arrangements and procedures applicable to the Works to ensure compliance by it and all

employees, agents, Sub-*Contractor*s or mandataries with the SHEQ Requirements while providing the Works in terms of this contract. As such, the *Contractor* confirms that this contract and the relevant Eskom Regulations referred to in this contract constitute written arrangements and procedures between the *Contractor* and the *Employer* regarding health and safety for the purposes of section 37(2) of the OHSA.

- The *Contractor* agrees that the *Employer* is relieved of any and all of its responsibilities and liabilities in terms of Section 37(1) of OHSA in respect of any acts or omissions of the *Contractor*, and the *Contractor*'s employees, agents or Sub-*Contractor*s, to the extent permitted by the OHSA.

- The *Contractor* hereby indemnifies the *Employer* and holds the *Employer* harmless in respect of any and all loss, costs, claims, demands, liabilities, damage, penalties or expense that may be made against the *Employer* and/or suffered or incurred by the *Employer* (as the case may be) as a result of, any failure of the *Contractor*, its employees, agents, Sub-*Contractor*s and/or mandataries to comply with their obligations in terms of clause 16, and/or the failure of the *Employer* to procure the compliance by the *Contractor* , its employees, agents, Sub*Contractor*s and/or mandataries with their responsibilities and/or obligations in terms of or arising from the OHSA.

    - In carrying out his obligation as the mandatory to the *Employer* for this contract in terms of the National Environmental Management Act No.107 of 1998, the *Contractor* ensures that he complies with the Act when Providing the Services or using plant, materials or equipment.

4.1.1.5 Permit to Work System (N/A for this work)

- NO work shall be carried out without a "PERMIT TO WORK"

- The *Contractor*'s Responsible Person must satisfy himself that all sources of possible danger are isolated. Details of the Permit to Work system can be found in the Plant Safety Regulations for Lethabo Power Station, Eskom. The *Contractor* must also make provision for sufficient Authorise Supervisor(s) depending on the contractual obligations. The Authorised Supervisor will need to undergo a week's training, which will be arranged at a suitable Eskom facility. This person must also pass an exam to verify his understanding of the procedure, after which he/she will need to be interviewed by a panel to discuss the practical understanding of being appointed as an Authorised Supervisor.

- A Master Permit to Work is used on declared major outages, details can be found in local procedure LBA 00085. Permit changes are made during the dead time, if it is required by the *Contractor* that a certain supply be made available or plant tested than this can be applied for at the Outage Management Meeting at least 1 day in advance.

- Plant with a prohibitive sign attached may only be operated by appointed Eskom personnel. Any *Contractor* employee found tampering with such plant will be permanently removed from Site.

4.1.1.6 Transportation of passengers: open LDV's

No *Eskom employee* or *Contractor* would be allowed to transport passengers on the back of open light delivery vehicles (LDV's). It is a legal requirement to provide safe transportation of *Eskom* and *Contractor* employees – therefore the following will be enforced:

- All passengers must be transported in a closed vehicle with proper and adequate Seating, fitted with safety belt for the number of passengers to be transported.
- Tools and equipment must be properly secured.
- Only authorised drivers may transport passengers.
- Proof must be submitted on request in terms of valid roadworthiness of all vehicles
- The above must apply to on site and off site transportation of passengers.

4.1.1.7 Eskom Life Saving Rules

Life Saving Rules have been developed that will apply to all Eskom *Employees*, agents, consultants and *Contractor*s.

Rule 1: Open, Isolate, Test, Earth, Bond, and/or Insulate before touch - that is any plant operating above 1 000 V.
Rule 2: Hook up at heights - no person may work at height where there is a risk of falling.
Rule 3: Buckle up – no person may drive any vehicle on Eskom business and/or on Eskom premises: unless the driver and all passengers are wearing seat belts.
Rule 4: Be sober (no person is allowed to work under the influence of drugs and alcohol.
Rule 5: Use a permit to work – where an authorization limitation exists, no person shall work without the required permit to work.
Rule 6: No person is allowed to text/talk on cell phone as this distracts attention

4.1.1.8 Local Safety Procedures

The *Contractor* adheres to all local procedures. A list of local procedures is available on request from the *Employer.*

4.1.1.9 Incidents / Accidents

- Incidents and accidents must be reported and investigated as detailed in LBA 00030. All incidents must also be reported to the *Employer* within 24 hours.

- First aid must be made available either by the *Contractor* or use can be made of the Lethabo medical centre at a fee. The availability of the *Contractor's* own first aid does not relieve the *Contractor* of his obligation to report and investigate the incident in accordance with Lethabo Procedure.

- The *Employer* will accompany the *Contractor* to hospital in the case of serious injury.

4.1.1.10 Fire Prevention

- Fire prevention and protection requirements to which *Contractor*s must comply are detailed in LBA 00030.

4.1.1.11 Protective Equipment and Clothing

- The *Contractor* supplies his own personal protective equipment necessary to carry out the *works* and the *Contractor* shall ensure that all overalls for his staff have clearly identifying **company LOGO's**

- The *Contractor* is also responsible to inspect and maintain such equipment as required in terms of the OHS Act and local procedures.

4.1.1.12 Inspection of Equipment

- The *Contractor's* equipment is inspected by an authorised Eskom employee on arrival at the site.

- The following documentation is required to accompany the equipment where applicable: copies of all test certificates and maintenance records.

- Lifting equipment and electrical equipment must be marked with a unique number, code or colour code for identification. If the equipment is found to be in an unsatisfactory condition or if insufficient maintenance has been carried out on the equipment then it will not be approved for use on Site. A list of all lifting equipment and electrical equipment must be submitted to the *Employer* at least 2 days prior to the occupation date. This list must indicate the unique number and description of the equipment.

- Training requirements must comply with the Works Information and statutory requirements.

4.1.1.13 Documentation

The *Contractor* is responsible to have the following documentation available on site in accordance with LBA 00030:

- A copy of the OHS Act.
- Copies of all site accident report forms as required by the OHS Act.
- Copies of minutes of health and safety meetings held on site.
- Copies of inspection reports produced by the accident prevention officer.
- Copies of attendance registers for all incidents or work stoppages

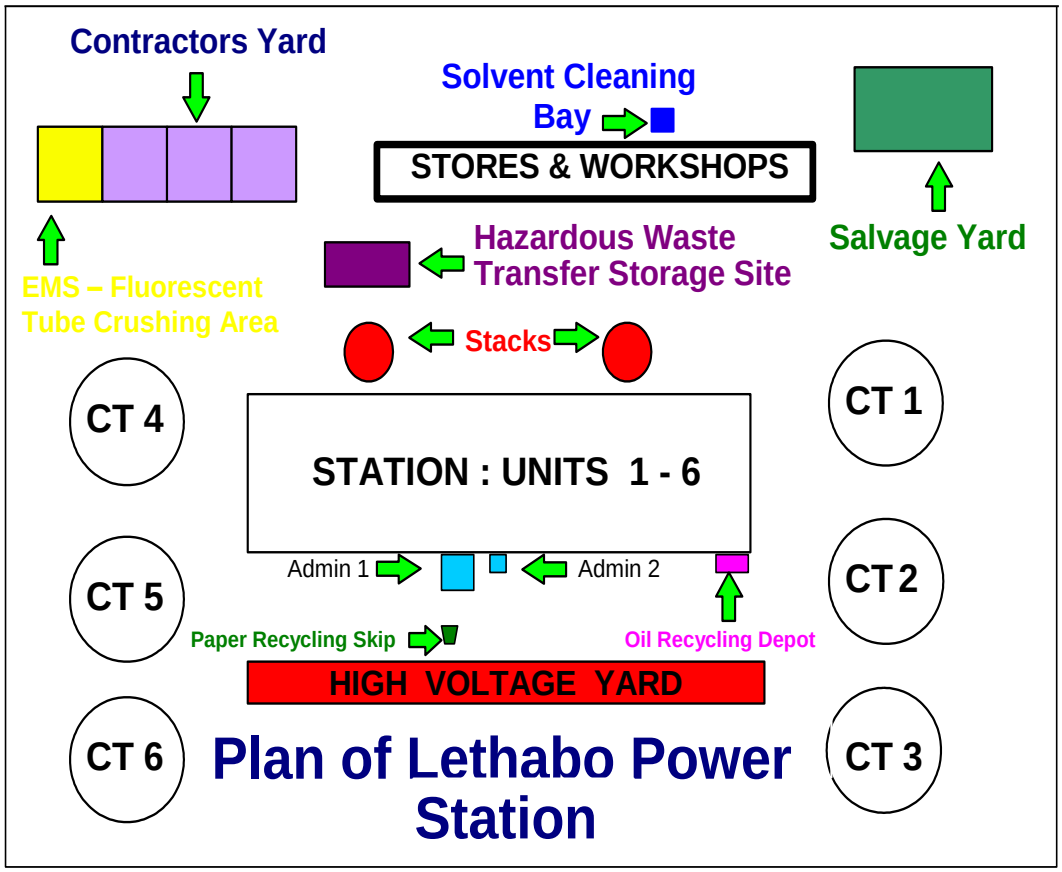
4.1.1.14 Environmental Policy and Waste Handling

The *Contractor* shall submit an Environmental Management Plan (EMP) to be reviewed and approved by Eskom environmental officer, one week before the commencement of works if required as per the Works Information.

4.1.1.15 Disposal of Waste

Waste shall be removed promptly to the designated disposal area as per below requirements:

- Domestic waste to the white waste bins
- No stockpiling will be permitted
- Production waste in the marked bins i.e. coal and ash only
- Paper in its recycling bin
- Contact Civil Engineering for the disposal of building rubble
- Scrap metal, Wood & Rubber, Redundant Valves, Pipes, and Equipment etc. to be placed in the marked bins in the Salvage Yard. Solvents and cloths used to the Cleaning Bay.



4.1.2 Additional General information

LBS00067 to be used as it contains statutory requirements as well as the minimum SHE requirements to which Eskom employees and contractors must comply whilst performing work on the premises of Lethabo Power Station.

The purpose of the procedure is to assist the Contract Supervisor or Project Manager, and the contractor to develop, implement and maintain an organised Safety, Health and Environment Management Plan performing work.

Contractors are accountable for taking all the necessary steps to protect all persons (including employees, visitors, and the general public), to protect the environment and property against any harm during the course of performing work or services in relation to their contractual obligations. In addition, all work procedures and equipment will be carried out in accordance with Eskom and legislative requirements.

Eskom's contractors have the fundamental accountability and responsibility for executing on-site safety, health, and environment issues for their activities, services, products, and work. Each contractor is responsible for ensuring that its employees and the employees of any appointed contractors comply with all occupational safety, health, and environmental (SHE) statutory requirements and the policies and procedures of Eskom Holdings SOC Limited.

This procedure is supplementary to the requirements of relevant legislation and the conditions of the contract.

4.1.3 Equipment or Material Access and Removal

4.1.3.1 Access

- The *Contractor* ensures that all equipment and materials brought through the security gate is signed in at the main security gate on an OV18 form.

4.1.3.2 Removal

- The *Contractor* is not allowed to remove any equipment or materials from site without producing the relevant OV18 forms or the equipment lists. (Security Access Sign In)
- If the equipment or material is to be removed the same day, on which they were brought on to site, then the OV18 form will need to be produced at the gate when leaving the site.
- If the equipment or material is removed after this time then a Non-Returnable Gate Release will be provided by the *Employer's Representative*, on receipt of the original OV18, with which the *Contractor* brought the equipment on site.

4.1.3.3 Site or Area Establishment and Evacuation

4.1.3.3.1 Application for Site Establishment:

- Sites are allocated according to availability, the period for which the *Contractor* is going to be on site, or if special circumstances warrant the allocation of a site. Documentation to support this application to be submitted as stipulated below

- The location of the site or area is indicated during the site or area take-over inspection.

4.1.3.3.2 Site Establishment:

- The *Contractor* does not occupy any site or area other than that allocated to him.
- The *Contractor* does not occupy the site or area prior to the take-over inspection.
- The *Contractor* maintains the site or area provided to him to the satisfaction of the *Employer*. A site inspection to be conducted by both parties prior to site establishment
- The *Employer* will require full access at all times of the *Contractor's* site or area for inspection.
- The *Contractor* will remain accountable for the security of his designated site area. The *Employer* will accept no accountability for any theft, losses or damage under the *Contractors*' control

4.1.3.3.3 Site De Establishment:

- The *Contractor* advises the *Employer* in writing, five (5) days prior to site de establishment in accordance with LBA 00030.
- Site de establishment cannot proceed without the approval of the *Employer* in writing. Final payment and the first portion of the retention (where applicable) will not be released if not supported by the *Employer*, as this is seen as part of the works.

4.1.3.4 Information Required for Site Establishment:

- Note that the below will be based on the Contractor's planning for execution of the works. The price schedule should be completed as per required Section A
- The information supplied will assist in site allocation

Description	Quantity	Comments: Contractor to explain quantity requirements
Equipment:		
Container		
Other		
People: (where applicable)		
Site Manager		
Other		
Materials: (where applicable)		
Oil		
Other: (where applicable)		
Hot permit requirement		

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

Normal working hours must be maintained as far as possible. The normal working hours on site will be from 07:30am to 16:30pm Monday to Friday. Should the *Contractor* wish to work outside these normal working hours, he should notify the *Project Manager* in writing.

The *Contractor* will only be allowed to work outside the specified hours once the *Project Manager* has approved the request in writing.

4.1.3.4.2 Site services and facilities

A. Site yard

It is required, for the proper co-ordination and execution of the *Works* that the *Contractor* (if required) has an office on site for the duration of the installation and optimisation. A site will be made available to the *Contractor* for his yard within the power station security area. The yard is a raw site and will be used by the *Contractor* for the establishment of his offices, workshop and stores.

The *Contractor's* yard is subject to periodic inspection by the *Project Manager*. The location of the nearest sewer manhole, power distribution point, portable water connection storm water channel and road access point is indicated by the *Employer*. The *Contractor* is responsible for connection to the closest point of supply.

4.1.3.4.3 Supply of electricity, if needed;

Electricity will be made available for construction purposes free of charge from power points which will be indicated by the *Project Manager*. The *Contractor* will be responsible for the provision of the reticulation system from the point of supply. Both 220 (AC) Volt and 380 (AC) Volt are available on request. All points of supply requested by the *Contractor* are provided in terms of quantity and location at the discretion of the

Project Manager. No guarantees of power supply quality are given and power supply breaks of some duration may occur without warning.

The *Contractor* makes arrangements at his own expense to improve continuity and quality of power where necessary for any reason and no claim of any nature relating to power failures is considered. No connection is made to the permanent installation at the Power Station without the prior acceptance of the *Project Manager*. The power supply is managed in accordance with the latest revision of the *Employer's* safety regulations, Operating Regulations for High-Voltage Systems and Plant Safety Regulations.

B. Lighting

Area lighting immediately outside the boiler and turbine houses and stairway lighting is provided by the *Employer*. The *Contractor* at his own expense provides temporary local lighting in accordance with the requirements of the Occupational Health and Safety Act where necessary. The *Project Manager* provides no local lighting. All construction lighting is the responsibility of the *Contractor*.

C. Roads and vehicles

Main access roads are surfaced and complete and may be used by the *Contractor* with the necessary care. The *Employer* maintains the Site roads, described above, to a fair condition. Any costs incurred by the *Project Manager* from damage caused to underground services, structures, etc as a result of the *Contractor* not using the prescribed routes is recovered from the *Contractor*. The *Contractor* provides temporary access points from the prescribed routes and roads to the points where the *Contractor* is required to perform work, having first obtained permission in writing from the *Project Manager.*

All vehicles used on site, by the *Contractor* will be road worthy and fitted with fire extinguishers as required. All road signs, traffic laws and regulations on site shall be adhered to by the *Contractor*. *Contractor's* employees failing to comply with the above will be denied access onto site.

D. Ventilation

The *Contractor* is responsible for adequate ventilation of the works. The *Contractor* shall provide everything else necessary for Providing the Works.

4.1.3.4.4 Facilities provided by the Contractor

A. *Contractor's* yard, offices, workshops and stores

If it is required for the *Contractor* to have a site office for proper co-ordination and execution of the *Works,* the *Contractor* shall include in his establishment, rates for all further treatment of the yard areas that he considers necessary for his entire operation throughout his period of occupation. The *Contractor* also includes for all security fencing, security and access arrangements. Maintenance of the yard is the *Contractor's* responsibility and to 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. The *Contractor's* plan for the layout of his yard area are accepted by the *Project Manager* prior to occupying the yard and the *Contractor* does not occupy any site area other than that allocated to him. The *Contractor's* plan states fully what measures are taken regarding removal and storage of topsoil, stabilisation of eroded areas and further loss of topsoil.

The Contractor complies with the environmental policy given in the Site regulations. The Contractor provides, erects and maintains for his own use adequate size office accommodation and stores together with such drainage, lighting, heating, and hot and cold water services as may be required. Provision is also made for adequate parking and a turning area adjacent to all the aforesaid structures. The *Supervisor* prior to commencement of any work on Site accepts all designs and layouts for these provisions.

The *Contractor* dismantles and clears the yard of all such temporary structures and associated foundations and infrastructure at the direction of the *Supervisor* on Completion of the whole of the *works*. No such dismantling and clearance work is carried out without prior acceptance from the *Supervisor.*

B. Telecommunications

Neither a network point nor a telephone is available on site. Should the *Contractor* require one, he is to make his own arrangements with relevant authorities. Should the *Contractor* wish to use radio communication equipment on site, he will make his own arrangements with the relevant authorities. In this case, he is requested to liaise with the head of security at the station to ensure that there is no interference with existing channels or equipment.

C. Sanitary facilities and refuse

The *Contractor* is to supply and maintain his own sanitary facilities at his *Contractor's* yard. A refuge control system will be established by the *Contractor*. All waste and refuge is collected and disposed of as directed by the *Project Manager.*

D. Equipment and appliances

Any electrical Equipment, or appliances, used by the *Contractor* conforms to the applicable Occupational Health and Safety Act and safety standards. The *Contractor* shall maintain his equipment and appliances in a safe and proper working condition. The *Project Manager* has the right to stop the *Contractor's* use of any electrical Equipment, or appliance, which, in the opinion of *Project Manager*, does not conform to the foregoing.

Any special tools and equipment to be used on site for the execution of the *works* is the responsibility of the *Contractor*. No extension of time and/or claim for standing time will be granted should the *Contractor* not conform to this specification.

E. Access to site

The *Contractor* makes his own assessment of, and allows in his rates for those access problems that may be encountered. No extra payment or claim of any kind is allowed on account of difficulties of access to the *works* or for the requirement of working adjacent to or in the same area as the *Employer*.

F. Site regulations

The *Contractor* complies with the Site Regulations, a copy of which is available at the *Project Manager's* offices. Any subject within the authority of the *Project Manager* may be addressed by a Site Regulation. Before work starts on Site, a kick-off meeting is held with the *Contractor* and the *Project Manager*, to explain in detail all requirements of the Site Regulations.

The *Contractor* is issued with a file of current Site Regulations at the project kick-off meeting. The file remains the property of the *Project Manager* and the *Contractor* is responsible for its maintenance and updating to include new or revised regulations as issued by the *Project Manager* during the course of the *works*.

G. Accommodation and transportation

The *Contractor* provides his own accommodation, meals and transport for all his employees engaged in the execution of the works. This includes the needs of his Sub-Contractors. The cost for accommodation, meals as well as for transportation to and from Site is included in the Prices. The *Contractor*'s employees are not allowed to sleep on site.

H. *Contractor's* organisation

The *Contractor* submits a project organogram to the *Project Manager*.

I. Security

The *Contractor* provides security necessary for the protection of the *Works* at all times until the Completion of the whole of the *Works*. Access to the site is controlled and it is governed by the terms and conditions laid down by the Station Security Officials from time to time. The proposed site will be shown to the *Contractor* during site meeting or clarification meeting. The *Contractor* liaises via the *Project Manager* with the Power station Security staff in order to obtain temporary permits for his staff and vehicles which will be working within the station.

The *Contractor* submits his application for vehicle permit to the *Project Manager*. Personnel and vehicles entering and leaving the site are subject to routine searches. The *Contractor* must obtain a “Gate Permit” from the *Project Manager*, before materials and equipment can be removed from the site. The “Gate Permit” gives an itemised list of materials and equipment to be removed from site. If any *Contractor’s* staff are transferred from Lethabo or leave Site, the person’s permit is handed over to the *Supervisor*. The *Contractor* ensures that personnel leaving site are transported out of the security area and that the permit is returned.

No firearms, weapons, alcohol, illegal substances and cameras (including cell phones with cameras) are permitted on Site. No ‘Private Work’ is carried out for or on behalf of any *Employer‘s* employee. Any person suspected of being under the influence of alcohol is tested and if proved positive, is refused entry to the security area.