

NEC3 Engineering & Construction Contract

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

and

for Mill Trunnion Scroll Liner Replacement over a period of three (3) years at Lethabo Power Station

Contents:		No of pages
Part C1	Agreements & Contract Data	2
Part C2	Pricing Data	30
Part C3	Scope of Work	27
Part C4	Site Information	57

CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:		No of pages
C1.1	Form of Offer and Acceptance	3
	[to be inserted from Returnable Documents at award stage]	
C1.2a	Contract Data provided by the Employer	6
C1.2b	Contract Data provided by the Contractor	21
	[to be inserted from Returnable Documents at award stage]	
C1.3	Pro - forma Guarantees	23

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:

Mill Trunnion Scroll Liner Replacement over a period of three (3) years 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 B, C or D	The offered total of the Prices exclusive of VAT is	R
	Sub total	R
	Value Added Tax @ 15% is	R
	The offered total of the amount due inclusive of VAT is ¹	R
	(in words)	

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

Signature(s)			
Name(s)			
Capacity			
For the tenderer:			
	(Insert name and address of organisation)		
Name & signature of witness		Date	
Tenderer's CII	OB registration number (if applicable)		

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

Acceptance

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

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

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

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

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

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

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

Signature(s)			
Name(s)			
Capacity			
for the Employer			
	(Insert name and address of organisation)		
Name & signature of witness		Date	

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

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

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

No.	Subject	Details
1	[•]	[•]
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]
7	[•]	[•]

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

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

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

C1.2 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: activity	Priced contract with schedule
	dispute resolution Option	W1:	Dispute resolution procedure
	and secondary Options		
		X1: inflatio	Price adjustment for on
		X2	Changes in the law
		X5:	Sectional Completion
		X16:	Retention
		X18:	Limitation of liability
		Z:	Additional conditions of ntract
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)		
10.1	The <i>Employer</i> is (Name):	2002/0 compa the co	n Holdings SOC Ltd (reg no: 15527/30), a state owned any incorporated in terms of mpany laws of the Republic th Africa
	Address	Park, M	ered office at Megawatt Maxwell Drive, Sandton, nesburg
10.1	The <i>Project Manager</i> is: (Name)	TBC o	n award
	Address		oo Power Station sville Rd
	Tel	_	n award
	Fax		n award
	e-mail	TBC o	n award

Address			
	De	habo Power Station neysville Rd joensdrift	on
Tel No.	ТВ	C on award	
e-mail	тв	C on award	
The works are			Scroll Liner
The following matters will be included in the Risk Register	Sec	e risk managemen	t in part 3
The boundaries of the site are	of v	work to be perform executed in an are	ned. Work to eas covered
The Site Information is in	Pai	rt 4: Site Information	on
The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.		ings to
The law of the contract is the law of	the Republic of South Africa		n Africa
The language of this contract is	English		
The <i>period for reply</i> is	3 Days		
The <i>Contractor</i> 's main responsibilities	the the teri	e core clauses is pure Contractor in Pairms in italics used in	rovided by rt 2 and in this elsewhere
Time			
The completion date for the whole of the works is	ТВ	C (Outage depend	lent)
The key dates and the conditions to be met are:	Со	ndition to be met	key date
	1	Safety File Approval	3 weeks after contract award
		Scope execution	
		Unit 4	твс
		Unit 3	твс
	e-mail The works are The following matters will be included in the Risk Register The boundaries of the site are The Site Information is in The Works Information is in The law of the contract is the law of The language of this contract is The period for reply is The Contractor 's main responsibilities Time The completion date for the whole of the works is The key dates and the conditions to be	Tel No. e-mail The works are Let Re The following matters will be included in the Risk Register The boundaries of the site are Are of be in the site Information is in The Works Information is in The law of the contract is the law of The language of this contract is The period for reply is The Contractor 's main responsibilities The completion date for the whole of the works is The key dates and the conditions to be met are:	Tel No. e-mail TBC on award Lethabo Mill Trunnior Replacement See risk management See risk management Areas associated with of work to be perform be executed in an are in the works information. Part 4: Site Information. Part 3: Scope of World documents and draw which it makes refered the Republic of South The language of this contract is the law of the Republic of South. The period for reply is The Contractor 's main responsibilities The Contractor 's main responsibilities The completion date for the whole of the works is TBC (Outage dependent of the works and the conditions to be met met are: 1 Safety File Approval Scope execution Unit 4

			Unit 6	твс
			Unit 1	твс
			Unit 2	твс
			Unit 5	ТВС
30.1	The access dates are:	Par	t of the Site	Date
		1	Site Establishment	твс
31.1	The Contractor is to submit a first programme for acceptance within	2 w	eeks of the Contra	act Date.
31.2	The starting date is	ТВ	C	
32.2	The Contractor submits revised programmes at intervals no longer than	On	e week.	
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.	The takeover will be after the completion of each units		
4	Testing and Defects			
42.2	The defects date is		weeks after compl th section of the w	
43.2	The defect correction period is	Def	anta affantina ava	4
	,	ava with Lat imp mu	ects affecting systilability must be related to the following system available to the feets and departing system available to after notification of the feets after notification in the feets	esolved r) hours. efects not ailability hin 2 (two)
	except that the defect correction period for	ava with Lat imp mu wee	illability must be re hin 24 (twenty four ent defects and de pacting system ava st be resolved with	esolved r) hours. efects not ailability hin 2 (two)
		ava with Lat imp mu weed 2 w	illability must be re hin 24 (twenty four ent defects and de pacting system ava st be resolved with eks after notification	esolved r) hours. efects not ailability hin 2 (two)
5	except that the defect correction period for	ava with Lat imp mu weed 2 w	illability must be re hin 24 (twenty four ent defects and de pacting system ava st be resolved with eks after notification	esolved r) hours. efects not ailability hin 2 (two)
5 50.1	except that the defect correction period for and the defect correction period for	ava with Lat imp mu wee 2 w 2 w The bet suc the	illability must be re hin 24 (twenty four ent defects and de pacting system ava st be resolved with eks after notification	esolved r) hours. efects not ailability hin 2 (two) on. rval will be of each d based on ies as per
	except that the defect correction period for and the defect correction period for Payment	ava with Lat imp mu week 2 w 2 w The bet such the NE	dilability must be rehin 24 (twenty four ent defects and departing system avait be resolved with eks after notification eeks e assessment interween the 25th day accessive month an completed activities.	esolved r) hours. efects not ailability hin 2 (two) on. rval will be of each d based on ies as per
50.1	except that the defect correction period for and the defect correction period for Payment The assessment interval is	ava with Lat imp mu week 2 w 2 w The bet such the NE	illability must be rehin 24 (twenty four ent defects and departing system avait be resolved with eks after notification eeks eeks eeks eeassessment interween the 25th day coessive month and completed activition option A guideling	esolved r) hours. efects not ailability hin 2 (two) on. rval will be of each d based on ies as per

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

South African Weather Bureau

and these measurements:

The weather measurements are supplied by

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 <i>Employer</i>
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 <i>Employer</i> .
7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	Refer to risk register
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	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]

ESKOM HOLDINGS SOC Ltd CONTRACT NO. _____ MILL TRUNNION SCROLL LINER REPLACEMENT OVER A PERIOD OF THREE (3) YEARS AT LETHABO POWER STATION

W1.2(3)	The Adjudicator nominating body is:	Division of Institution Engineerin Institution	tan of ICE-S. the South A of Electrical g and the Lo of Civil Eng ice-sa.org.za body.	Afric ond ine	can Ion ers.
W1.4(2)	The tribunal is:	Arbitration	-		_
W1.4(5)	The arbitration procedure is	Conduct of published	edition of Ru f Arbitration by The Asso (Southern A sor body.	s ocia	ition of
	The place where arbitration is to be held is	South Afric	ca		
	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	or his nom	nan for the ti inee of the A ors (Souther sor body.	Ass	ociation
12	Data for secondary Option clauses				
X1	Price adjustment for inflation				
X1.1(a)	The base date for indices is	The last day of the month preceding the month in which the latest date for the submission of the Tender falls. By way of example, if the last day for the submission of the Tender is 14 August of Year X, the Base Date is 31 July of Year X.			
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	proportio n	linked to index for		dex repared y
X2	Changes in the law	NEC3 Apri will apply.	2013 Core	Cla	uses
Х5	Sectional Completion				
X5.1	The completion date for each section of the works is:	Section	Descriptio	n	Compl etion
		Unit 4			date

		Unit 3		TBA
		Unit 6		TBA
		Unit 1		TBA
		Unit 2		TBA
		Unit 5		TBA
		ome o		TBA
X5 & X7	Sectional Completion and delay damages used together			
X7.1 X5.1	Delay damages for late Completion of the sections of the works are:	section	Description	Amou nt per day
	Remainder of the <i>works</i>			
	The total delay damages payable by the	20/ of the	total price of th	
	Contractor does not exceed:	section to	15% maximum any delays	
X16	Retention			
X16.1	The retention free amount is	R0.00		
	The retention percentage is	5% of the	contract amour	nt
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 <i>Contractor</i> 's liability to the <i>Employer</i> for loss of or damage to the <i>Employer</i> 's property is limited to:	the amoun	nt of the deduct the event	ibles
X18.3	The Contractor's liability for Defects due to his design which are not listed on the	The greate the tot	er of al of the Prices	at the

Defects Certificate is limited to

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) 3 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 subcontractor's 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 Sub*contractor* s, 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 Sub*contractor* s, 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 Subcontractor's 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 <i>works</i> , Plant and Materials	The replacement cost where not covered by the <i>Employer</i> 's insurance
	The Employer's policy deductible, as Contract Date, where covered by the Employer's insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract	Loss of or damage to property Employer's property The replacement cost where not covered by the Employer's insurance The Employer's policy deductible, as Contract Date, where covered by the Employer's insurance Other property The replacement cost Bodily injury to or death of a person The amount required by applicable I
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applical law

Z 13.2 Replace core clause 87 with the following:

The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

Insurance against or name of policy	Minimum amount of cover or minimum of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document

Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 Nuclear Liability

- Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 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 [weather station]

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

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

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

C1.2 Contract Data

Part two - Data provided by the Contractor

Notes to a tendering contractor:

- 1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
- 2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
- 3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

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

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

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

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 <i>Contractor</i> 's design is in:				
31.1	The programme identified in the Contract Data is				
Α	Priced contract with activity schedule				
11.2(20)	The activity schedule is in				
11.2(30)	The tendered total of the Prices is				
	Data for Schedules of Cost Components	Note "SCC" means Sche starting on page 60, and Schedule of Cost Compo of ECC3 (April 2013).	"SSCC"	means	s Shorter
Α	Priced contract with activity schedule	Data for the Shorter Sci Components	nedule d	of Cos	t
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	%			
22 in SSCC	The rates of other Equipment are:	Equipment	Size o capaci		Rate
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	Category of employee		Hourl	y rate
	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				
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:				

C1.3 Forms of Securities

Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract

The conditions of contract stated in the Contract Data Part 1 include the following Secondary Options:

X1: Price adjustment for inflation

X2: Changes in the law

X5: Sectional Completion

X16: Retention

X18: Limitation of liability

Z: Additional conditions of contract

Each of these secondary Options requires a bond or guarantee "in the form set out in the Works Information". Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Works Information.

Option X16:

The *Contractor* may provide a Retention Money Guarantee in the form stated here. When the *Employer* receives and accepts a Retention Money Guarantee exactly in the form stated he will instruct the *Project Manager* not to assess any amount be retained in terms of secondary Option X16.

The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

Pro forma Retention Money Guarantee (may be used when Option X16 applies) (to be reproduced exactly as shown below on the letterhead of the Bank providing the Guarantee)

Eskom Megawa Maxwel Sandton Johann	l Drive า
Dear Sir	S
Referen	ce No. [●] [Drafting Note: Bank reference number to be inserted]
Retentio	on Money Guarantee: [Drafting Note: Name of Contractor to be inserted]
Project []: Contract Reference: [Drafting Note: Contractor contract reference number to be inserted]
1.	In this Guarantee_the following words and expressions shall have the following meanings:-
1.1	"Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
1.2	"Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]
1.3	"Contract" – means the written agreement relating to the Project, entered into between Eskom and the <i>Contractor</i> , on or about the [●] day of [●] 200[●] (Contract Reference No as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted]
1.4	"Contractor" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
1.5	"Eskom" - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30
1.6	"Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.
1.7	"Guaranteed Sum" - means the sum of R $[ullet]$ ($[ullet]$ Rand); [Drafting Note: Insert amount of Retention Money Guarantee.].
1.8	"Project" - means the
2.	At the instance of the <i>Contractor</i> , we the undersigned and, in our respective capacities as and of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the <i>Contractor</i> of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3.	A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
3.1	be signed on behalf of Eskom by a director of Eskom or his authorised delegate.
3.2	state the amount claimed ("the Demand Amount'):

MILL TRUNNION SCROLL	LINER REPLACEMENT OVER	R A PERIOD OF THREE (3)	YEARS AT LETHABO POWER S	STATION

- 3.3 state that the Contractor has failed to carry out his obligation(s) to rectify certain defect(s) for which he is responsible under the Contract (and the nature of such defect(s)) alternatively that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.
- 4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:
 - 4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
 - 4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
- 5. The Bank's obligations in terms of this Guarantee:
 - 5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
 - 5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed by the fact that a dispute may exist between Eskom and the Contractor.
- 6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.
- 7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.
- 8. This Guarantee:
 - 8.1 shall expire on the Expiry Date until which time it is irrevocable;
 - 8.2 is, save as provided for in Error! Reference source not found. above, personal to Eskom and is neither negotiable nor transferable;
 - 8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof:
 - shall be regarded as a liquid document for the purpose of obtaining a court order; and 8.4
 - 8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.
 - Any claim which arises or demand for payment received after expiry date will be invalid and 8.6 unenforceable.
- 9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at	Date Bank's seal or starr	ıρ
For and behalf of the Bank		
Bank Signatory:	Bank Signatory:	
Witness:	Witness:	

PART 2: PRICING DATA ECC3 Option A

Document reference	Title	No of pages
C2.	Pricing assumptions: Option A	
C2.:	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 11 defined terms 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.	Description	Unit	Quantity	Rate	Price
1.0	Preliminary and General				
1.1	Site establishment	EACH			
1.2	Health, Safety and Environment cost	EACH			
2.0	Replacement of Following parts as described in works information				
2.1	Removal of old scroll liners as per works information	Per Mill	14		
2.2	Installation of new scroll liners as per works information	Per Mill	14		
2.3	System Commissioning	EACH	14		
2.4	Manuals (Data books 3 copies)	Per Mill			
2.5	Scaffolding	Per Mill			_
2.6	Site De establishment				
Total 1	ender Price (Excl. VAT)	1	ı		

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	

1. INTRODUCTION

The original scroll liners that were installed on the station consisted of low chromium molybdenum steel with a chromium content of 1,9% - 2,3% which is not according to the latest Eskom specification for tube mill liner materials. This specification, number 36-805 Rev 0 - Tube Mill Liner Material, calls for 22% to 28% chromium content in the material composition. The original supplied as new scroll liner material thickness measured between flights were 31,5 mm compared to an average thickness of 10 mm measured on unit 1 E-mill which had accumulated 162 000 hrs. This equates to a wear rate of approximately 7 534 hrs/mm or 1.33mm/10 000 hrs. According to the OEM, scroll liners must be replaced before the minimum thickness between flights reaches 6mm. By multiplying the calculated wear rate with the remaining usable material thickness, the calculated life of a scroll liner will be approximately 177 000 hrs compared to the anticipated design life of approximately 80 000 hrs. This calculated life is however only an estimate and may vary between mills because of factors including coal quality, coal tonnage milled, liner heat treatment as well as inaccuracies during ultrasonic thickness measurements etc. It is however advised to renew liners at latest 160 000 hrs/9mm flight thickness in order to prevent secondary damage to the mill trunnion head assembly and bearing journal.

2. DEFINITIONS

3. ABBREVIATIONS

4. ROLES AND RESPONSIBILITIES

5. PROJECT HIGH LEVEL SCOPE

This project will include the installation of Mill Scroller Liners on 14 (fourteen) of the 36 (thirty-six) tube mills at Lethabo Power Station.

- 1) Supply and erect equipment and scaffolding to facilitate renewal of scroll liners as per scope of work listed under point 2 below.
- 2) Carry out the following scope of work:
 - Remove inlet/outlet boxes
 - Remove seal ring from the liner
 - Remove head sleeve extension
 - Remove old scroll liners
 - Remove braided packing rings
 - Remove old mill feed/discharge box feed sleeves
 - Install three rings of braided packing and Durablankets on liner and secure with tape
 - Insert new scroll liner into position using an assembly rig
 - Install new mill head sleeve extensions
 - Install new feed/discharge box feed sleeves
 - Re-install seal ring
 - Re-install inlet/outlet boxes

6. TECHNICAL SPECIFICATION SCOPE

- 6.1 Work, Equipment and Services to be provided by the Employer
- 6.2 Work to be Performed and Equipment and Plant to be provided by the Contractor
 - · Coding and Labelling
 - Documentation
 - Training

6.3 General Requirements

. Training of Engineering Staff

7. REQUIREMENTS

7.1. Employer's requirements

QUALITY & PERFORMANCE REQUIREMENTS

7.2. SAFETY REQUIREMENTS

 The Contractor shall comply with the latest revision of the Eskom Generation Plant Safety Regulations

7.3 REQUIREMENTS RELATED TO AVAILABILITY

8. GENERAL REQUIREMENTS OR INFORMATION

8.1. Configuration and Documentation Management

8.1.1. Plant Coding

Not Applicable

8.1.2. Plant Labelling

The *Contractor* shall submit a list of identified plant items that require AKZ codes to the *Employer*. The *Employer* will provide AKZ codes for the plant items and the *Contractor* shall then manufacture and install AKZ labels to the plant items.

9. HEALTH AND SAFETY RISK MANAGEMENT

The *Contractor* is appointed to act on behalf of the *Employer* in terms of the Occupational Health and Safety Act no 85 of 1993 for the Works.

9.1.1 Safety of Workers

The Contractor ensures the following but not limited to:

• The safety of all persons working on Site.

- The *Contractor* informs their personnel about the following evacuation procedures: Emergency Alarm Activation and Evacuation of Personnel LBS00036.
- Compliance to local Plant Safety Regulations

9.1.2. General Safety Rules

The Contractor complies with the following:

- Lethabo Power Station Health and Safety Standards as per Lethabo Power Station Health & Safety Specifications for *Contractor* s (PA/270/003) attached to the Invitation to Tender. This procedure will be handed over during tender enquiry and will enable the successful Tenderers to compile a Health & Safety plan that has to be approved by the *Employer* prior to commencement of work.
- Compliance with Eskom No Smoking Policy
- Adhere to the OHS Act 85 of 1993
- All staff will undergo Safety Induction, presented by Lethabo Risk Management Department

9.1.3. Health and Safety Plan

The following is required after contract award:

- The Contractor compiles a Health and Safety Plan, filed in a Health and Safety File, comprising of the following, if required to perform work:
- Proof of the contracting company's own Health and Safety Policy
- Proof of appointments, assignments and designations as required in terms of the Occupational Health and Safety Act, No 85 of 1993
- Proof of Risk Assessments regarding Hazards identified and proof of training of own employees regarding controls derived from the risk assessment
- Proof of Safe Work Procedures that derived out of the Risk Assessments
- Proof of the contracting company's own Emergency Plan that will deal with their own emergencies on site
- Proof of a Fall Protection Plan, if required to perform work at elevated levels developed by a competent person appointed by the contracting company
- Proof of "Notification to perform Construction Work" a copy of the notification addressed to the Department of Labour as required Regulation 3 of the Construction Regulations
- Proof of an Induction Program (it is advised that the Lethabo SHE Rules as a Guide) and an
 attendance register signed by its employees prior the commencement of any construction work on
 site
- Proof of the contracting company's employees Medical Fitness Certificate. (Must still be valid one
 year. May only have been issued by an occupational health practitioner)
- Proof of contractor's weekly Health and Safety Rep Inspections regarding its own site and where detached work is performed
- Proof of Personal Protective Equipment (PPE) issued to Contractor 's employees.
- Proof of contracting company's Accident/Incident Reporting and Investigation System
- Proof of checklists and where applicable test certificates, regarding contractor 's tools, equipment, machinery, mobile equipment, vessels under pressure and any other applicable checks required by the Act
- A "Section 37(2) Agreement with Mandatory" needs to be drawn up by the *Employer* and co-signed by the *Contractor* before work can commence
- The Contractor shall ensure that his Subcontractor s do also have a Health and Safety File and that it must be accepted by the Contractor.
- The Safety Officer employed by Lethabo Power Station will audit these Health and Safety Plans to ensure compliance with the provisions of the Act.

9.1.4. SHE Documentation Required from the Contractor at Tender

The *Contractor* provides the following documents in terms of Health, Safety and Environmental performance with the tender. Should the *Contractor* not provide this information it will be assumed that it does not exist:

Letter of good standing with COID or any insurance body

- An Organogram indicating the names of all persons that will hold legal appointments on the project in terms of the Act
- The expected roles, responsibilities and authority of those who are proposed to receive legal appointments
- Provide an overview of the system / program that is utilized to manage Safety, Health and Environment.

9.1.5. Occupational Health and Safety Act 1993, Section 37

The Contractor complies with the following:

- The Occupational Health and Safety Act, 1993, and all Regulations made there under.
- All *Employer* Safety and Operating Procedures, which are attached hereto.

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

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

The *Contractor* shall appoint a person who will liaise with the *Employer* Safety Officer responsible for the premises relevant to this contract. The person so appointed shall on request:

- Supply the *Employer* Safety Officer with copies of minutes of all Health and Safety Committee Meetings, whenever he is required to do so.
- Supply the Employer 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 Employer
 Safety Officer of any changes thereto.

Employer may, at any stage during the currency of this agreement be entitled to:

- Do safety audits at the *Contractor* 's premises, its work places and on its Employees.
- Refuse any Employees, sub-Contractor or agent of the Contractor access to its premises if such person are found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualified in terms of the Act.
- Issue the *Contractor* with a work stop order or a compliance order should *Employer* become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures by the *Contractor* or any of its Employees, sub-*Contractor* s or agents. Stoppages of this nature will not constitute a compensation event.

9.1.6. Occupational Health And Safety Act 1993 additional information

- The Medical Station is available on site during normal working hours. The afterhours emergency telephone number is 5555 or from a Lethabo phone the extension is 5555 that can be phoned for assistance.
- Fire protection and rescue services are available on site 24 hours per day.
- The *Contractor* must comply with Lethabo Power Station *Contractor* s Safety Manual. This manual is available on request from the Employer's Representative.
- The Contractor and his sub-contractor s must comply with Eskom's Non Smoking Policy.
- The Contractor and his sub-contractor s must comply with the Occupational Health and Safety Act85 of 1993.
- The following will be an advantage
- NOSA accreditation.
- NOSA MBO system in place.
- The Contractor is not allowed to weld onto any steam piping, working structures or plant.
- The Contractor must appoint Safety Representatives to assist the Employer's Representative to:
- Identify possible hazards, dangers and risks.
- Ensure potentially and actions are mitigated.

- Ensure a safe working environment.
- The Employers Representative shall be entitled to request the Contractor to stop work, without penalty to the Employer when the Contractor fails to conform to the prescribed and accepted health and safety standards or contravene the health and safety sections and regulations.
- The Employer's Representative must be informed within 24 hours of any injury or damage to property or equipment.

9.1.7. Housekeeping

Working areas must be cleaned daily. All equipment must be packed neatly without interference to access.

10. ENVIRONMENTAL MANAGEMENT

- Lethabo has an Environmental Policy, to which the Contractor and his employees must adhere. It is the responsibility of the Contractor to ensure that he obtains copies of the Lethabo Environmental Policy, the legal register applicable to his area of responsibility, the aspect register and the Lethabo procedures (applicable to the Contractor's area of responsibility) and to familiarize themselves on such procedures, within 30 days from the date of commencement of work at Lethabo, to assist the Contractor and his/her employees to prevent pollution and to comply with legislative requirements. Copies of the above-mentioned documents shall be obtained from the Project Manager or Environmental Officer on the first day prior to commencement of work at Lethabo. The Contractor shall submit proof to the Environmental Officer of Lethabo that he and his employees has done all the necessary training on procedures and Policies supplied to them and that they do understand the contents of the procedures, registers and policies and will adhere to them at all times.
- **Where applicable**, the *Contractor* adheres to the following rules:
- Provide sufficient storage containers, labelled depicting general or hazardous waste and store in a designated storage area
- No hazardous waste may be stored for a period of more than 90 days on the Lethabo premises.
- Ensure that all hazardous waste is disposed off at a licensed Class H disposal site. A copy of the hazardous waste disposal certificate is submitted to the Project Manager.
- Ensure that all other general waste is disposed off at the local municipal waste dump
- Ensure that the Contractor's site does comply with the general good housekeeping practices. Redundant materials are moved to allocated sites. No scrap shall be stored in the Contractor's yard. Scrap is to be cleared from Site daily.
- The non-adherence to the Lethabo Environmental policy and rules could result in the termination of this contract.

10.1. Environmental constraints and management

- The Contractor provides an environmental management plan applicable while executing the
- The Contractor ensures that all goods, services or Works supplied comply with applicable environmental legislation. The Contractor is responsible for keeping the work area clean of any environmental waste.
- All waste introduced and/or produced on the Employer's premises by the Contractor is handled in accordance with the minimum requirements for the Handling and disposal of Waste in terms of Government Legislations and *Employer's* environmental requirements.

11. QUALITY ASSURANCE REQUIREMENTS

- No work will be done without a QCP that is approved by the Employer. A QCP must be submitted to the *Employer* for the works 14 days before that part of the work is to commence.
- QCP's and related documentation shall be subject to comment and acceptance by the Employer's Quality Control personnel as well as Engineering. QCP's will make provision for

signatures for interventions by at least the *Contractor* 's QC Representative, the Employer's QC Representative and the Employer's Engineering Department.

- Each QCP will have a page for proof signatures, so that any signature can be traced to the individual who has endorsed any activity on QCP.
- Intervention points will be signed as the work progresses and no back-dating will be allowed.
- Notification for hold and witness points shall be in writing and shall be done at least 24 hours in advance.
- The following minimum hold points must be included for the Employer's Quality Control Department:
 - Approval of QCP.
 - o Review and assist with the commissioning of the new installations.
 - o Final Sign off and Acceptance.
 - o Final data book Review.
- The following points to be included as a minimum on the Contractor's QCP:
 - Approval of QCP's by the Employer's Engineering representative, Employer's QC and the Contractor's representative.
 - Intervention points for the *Employer* during manufacturing, installation and commissioning. These intervention points will be based on the agreement between the *Contractor* and Employer.
 - o Ensure that all permits are established before work can commence.
 - Mark the equipment with the appropriate AKZs. Labelling should be done in accordance with the Lethabo Power Station Information Manual [27].
 - Commissioning and functionality testing by the Contractor and Employer's representatives.
 - Final approval of QCP and plant handover to the Employer's engineering representative.

12. DRAWING REQUIREMENTS

- The Contractor shall update all plant drawings, increasing the revision number by 1 for the final version. The complete plant drawings must be updated to reflect the plant changes made by the Contractor.
- In cases where the plant drawings are not sufficiently clear, the Contractor shall contact the Employer for clarity.
- All Drawings to be provided shall be in accordance with the Engineering Drawing Standard Common Requirement (240-86973501).
- The following general requirements apply to all the drawings:
 - o Drawings shall be provided for *Employer* approvals.
 - All drawing revisions must be provided as paper copies in original (as per Engineering Drawing Standard – Common Requirement (240-86973501), but in all cases, at least A3 size) as well as provided in pdf format and original micro station format.

13. DOCUMENTATION REQUIREMENTS

- All documents supplied by the *Contractor* shall be subject to the *Employer's* acceptance. Documents such as detail design report, QCP's, method statements and other documents impacting the Works must be accepted by the *Employer* at least 14 working days prior to commencement of the Works.
- Each revision of a document or drawing shall be accompanied with a list of the comments made by the *Employer* on the previous revision if applicable and the response/corrective action taken by the *Contractor*. Changes will be recorded in a revision table contained on/in each drawing/document.
- Documents and drawings shall indicate the *Employer's* reference number as allocated by the *Employer*. The *Contractor* may have his own document or drawing number on the document or drawing, but where reference is made among documents or drawings, the *Employer's* number shall be used.
- The *Contractor* shall compile a complete data book for all works done containing the following as per VDSS:
 - Scope of work.

- Approved QCPs.
- Inspection reports and procedures.
- As built drawings.
- Material summary that gives full traceability between components used, assembly drawings, material certificates and complete ordering information.
- Pump performance curves.
- Control philosophy and alarms.
- Maintenance, operating and troubleshooting documentation of all new plant equipment installed (as a minimum).
- Mechanical assembly drawings of installed main turbine and BFPT oil purifier skids.
- Wiring drawings of the installed main turbine and BFPT oil purifiers.
- o Cable test results.
- As built Cable Schedules as per the Employer's 240-56176097: Electrical Cable Schedule Template.
- Electrical load list as per the Employer's 240-56227927: Electrical Load List Template.
- Control panel GA, single line diagrams, schematics.
- Updated switchgear schedules (drawing 0.63/5049) where necessary.
- Earthing test results and drawings indicating earth connection points for the new equipment.
- All NCR's and corrective actions (Contractual Defect Notifications).

All documents supplied by the *Contractor* shall be subject to the Employer's approval. The language of all documentation shall be in English. All documentation shall be controlled and managed in accordance with Document and Records Management Procedure (32-6).

14. PROGRAMMING CONSTRAINTS

14.1 General

- a. Planning and control of the works is to be done by the *Contractor* in line with the accepted Work Breakdown Structure.
- b. A single programme is to be used for planning of the Works, incorporating the programmes of all sub-contractor s, where applicable.
- c. Interface points with sub-contractor s and others, including interfacing between different subcontractors and others are to be clearly identified.
- d. Project Key Milestone Dates (stated in the contract data) as supplied by the *Project Manager* are to be incorporated into the programme by the *Contractor*.

14.2 Work execution planning and reporting

a. Contractor to submit the plan for work execution.

14.3 Additional programme requirements

a. A programme is to be submitted after 14 days of contract award, stipulating high level execution of this project.

14.4 *Contractor* 's management, supervision and key people

The *Contractor* is to provide a detailed organogram at tender. 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 *Project Manager*.

In a case where the Authorised Supervisor is required, the *Contractor* shall provide his own responsible person (authorised supervisor) as required by the Permit to Work system on site during the duration of the works.

15. INVOICING AND PAYMENT

Within one week of receiving a payment certificate from the Service Manager in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the Project Manager's payment certificate.

The *Contractor* shall address the tax invoice to Lethabo accounts payable section (APS). Private Bag x 415 Vereeniging 1930

Alternatively email it to: Invoiceseskomlocal@eskom.co.za

and include on each invoice the following information:

- Name and address of the Contractor.
- The contract number and title;
- Contractor 's VAT registration number;
- The Employer's VAT registration number 4740101508;
- The total Price for Work Done to Date which the Contractor has completed;
- Other amounts to be paid to the Contractor;
- Less amounts to be paid by or retained from the Contractor;
- The change in the amount due since the previous payment being the invoiced amount excluding VAT, the VAT and including VAT;
- The original copy of an invoice shall be send to the Employer's accounts payable section (APS).

16. CONTRACT CHANGE MANAGEMENT

The change management process for addressing changes on the contract will be as follows;

- All requests for contract changes shall be submitted in writing by the *Contractor* to the Project Manager as per the terms and condition of the contract.
 - The Project Manager will follow the prescribed requirements for managing contract changes as per his/her delegation of authority.

Changes that are not within the delegated authority of the Project Manager will be submitted for approval to the relevant adjudicating authority in accordance with Procurement and Supply Chain

Management Procedure, 32-1034. The *Contractor* shall ensure that all approved changes are documented and kept as record.

17. CONSTRAINTS ON HOW WORK WILL BE CONDUCTED, AS PER THE WORKS INFORMATION OR WHERE APPLICABLE;

- The *contractor* shall be responsible for supply of all the equipment and tools to conduct the works.
- The construction price on the price list should cater for equipment, tools and cost.
- The warranty for the works shall start from the day after successful commissioning onwards.
- The *Contractor* shall submit proper off-loading procedure two weeks before equipment delivery to Employer's site.
- The contractor shall allow in his program, 2 days for induction training and access to site...
- During works, the Employer shall do random SHERQ audits.
- The contractor shall adhere to the agreed schedule, and apply project management principles to avoid delays.
- No work shall commence without the supervision and or availability of key personnel on site as required by the legislation.

- The *contractor* shall carry out the works according to the specifications and designs provided by the Employer.
- The *Contractor* 's deployment of key personnel on site shall be strictly in line with the requirements of the Employer's technical requirement criteria.
- 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.
- All provisions of the Occupational Health and Safety Act, 85 of 1993, and any other applicable legislation, must be adhered to.
- No equipment shall be provided by the *Employer* for the works
- If the outage is deferred, the installation shall be postponed until that specific outage time.
- The *Contractor* will be notified through Early Warnings if the outage is deferred, since the deferments are beyond the Employer's control.
- The *Employer* intends to second staff, both engineering and maintenance, part-time or full-time to the *Contractor* 's team during the installation and commissioning stages of the contract, without affecting the Prices. The aim is that the Employer's personnel receive "on-job" training in order to become familiar with the equipment forming part of the works.

18. PROCUREMENT

The *Contractor* will be required to provide the *Employer* with all information regarding his sub-*contractor* s. The *Employer* will need to approve all sub-*contractor* s to be used by the *Contractor*. The *Contractor* shall be responsible for all the activities performed by the sub-*contractor* s.

18.1 Subcontract documentation, and assessment of subcontract tenders

The *Contractor* shall be responsible for all documentation and work performed by sub*contractor* s. The *Contractor* shall ensure that all work performed by the sub-*contractor* is in accordance to the Employer's Works Information and meet all quality requirements. The *Employer* may make use of his quality control officers to conduct audits on work performed by the sub-*contractor*.

BBBEE and preferencing scheme

Refer to conditions of tendering.

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

Refer to conditions of tendering.

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

[Insert the agreed ASGI-SA Compliance Schedule here]

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

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

PART 4: SITE INFORMATION

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

PART 4: SITE INFORMATION

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

1. Site Procedures and Regulations

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.

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.

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.

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, Subcontractor 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-Contractors, 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.

1.5 Permit to Work System (N/A fo 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.

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.

Eskom Life Saving Rules: 1.7

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.

<u>Rule 5:</u> 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

1.8 Local Safety Procedures

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

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.

1.10 Fire Prevention

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

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.

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.

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

Environmental Policy and Waste Handling 1.14

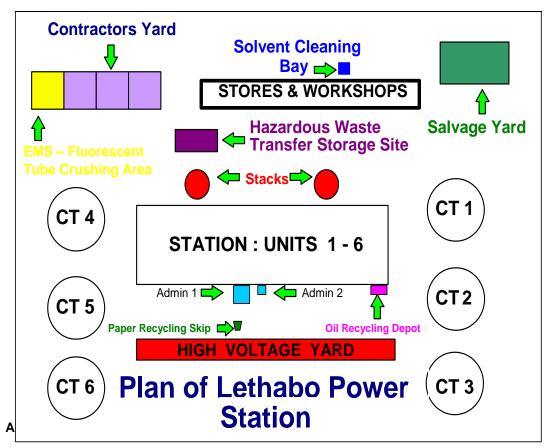
The Contractor shall submit an Environmental Management Plan (EMP) to be reviewed and approved by Eskom environmental officer, one week before the commencement of works if required as per the Works Information.

1.15 **Disposal of Waste**

2.

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.



LBS00067 to be used as it contains statutory requirements as well as the minimum SHE requirements to which Eskom employees and contractor s 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.

Contractor s 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 *contractor* s 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 *contractor* s 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.

2.2 Equipment or Material Access and Removal

2.2.1 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.

2.2.2 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.

2.2.3 Site or Area Establishment and Evacuation

2.2.3.1 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.

2.2.3.1 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 Contractor s' control

2.2.3.2 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.

2.2.4 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		

Management and start up

Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and review	Every Monday at 10:00	Projects Boardroom	Contractor SHE Officer and Project Manager
Tool box sessions	Every-day before commence of work	Site	All the <i>Contractor</i> 's employees.
Compensation events	As and when required	To be confirmed	Employer's and <i>Contractor</i> 's Representatives
Overall contract progress and feedback	Every Monday at 08:30	Projects Boardroom	Employer's and <i>Contractor</i> 's Representatives

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

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

Documentation control

Documentation requirements 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.

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*.

Documentation Management System

A comprehensive documentation management system is provided. All documentation is maintained and updated until Completion. Any change is propagated automatically to all related documentation. All documentation forms an integral part of the documentation system.

The AKZ plant position codes are identified in the documentation. AKZ codes, down to third level, are to be used. The Contractor includes the Project Manager accepted drawing head on all drawings submitted to the Project Manager. The format of all documents is submitted to the Project Manager for acceptance.

Automatic prevention of duplication of numbering or ambiguity is built into the system.

2.2.2 **Documentation Control**

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

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.

Site services and facilities

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.

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.

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*.

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.

Ventilation

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

Facilities provided by the Contractor

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*.

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.

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*.

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.

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*.

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*.

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-*Contractor* s. 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.

Contractor 's organisation

The Contractor submits a project organogram to the Project Manager.

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.