CONTRACT NO.



# NEC3 Engineering & Construction Contract

Between	ESKOM HOLDINGS SOC Ltd (Reg No. 2002/015527/30)		
and			
for	REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 2 FABRIC FILTER PLANT AT DUVHA POWER STATION		
Contents:		No of pages	
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CONTRACT No.		'	
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# Part C1: Agreements & Contract Data

Contents:		No of pages
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ESKOM HOLDINGS SOC Ltd CONTRACT NO.

# C1.1 Form of Offer & Acceptance

REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 2 FABRIC FILTER PLANT

#### Offer

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

# REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 2 FABRIC FILTER PLANT AT **DUVHA POWER STATION**

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

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

Options A	The offered total of the Prices exclusive of VAT is
	Value Added Tax @ 15% is
	The offered total of the amount due inclusive of VAT is¹
	(in words) [●]

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

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

<sup>&</sup>lt;sup>1</sup> 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			
Name & signature of witness	(Insert name and address of organisation)	Date:	

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

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

 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.

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	
		A: Priced contract with activity schedule
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X3: Multiple currencies
		X5: Sectional Completion
		X7: Delay damages
		X16: Retention
		X17: Low performance damages
		X18: Limitation of liability
		Z: Additional conditions of contract
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The Project Manager is: (Name)	Shirly Dhladhla
	Address	Duvha Power Station
	Tel	013 295 9465
	Fax	
	e-mail	DhladhS@eskom.co.za
10.1	The Supervisor is: (Name)	ТВА
	Address	Duvha Power Station

	Tel No.			
	Fax No.			
li	e-mail			
11.2(13)	The works are	U2 FFP Replacement		
11.2(14)	The following matters will be included in the Risk Register	<ol> <li>Delay completion date</li> <li>Program and recovery plan not submitted to Eskom</li> <li>Contractor CSD Compliance</li> <li>Slipping and falling</li> <li>Dust (inhalation, skin and eye irritation)</li> <li>Scorching sun(skin irritation)</li> <li>Cost of damaged bags and cages during implementation</li> </ol>		
11.2(15)	The boundaries of the site are	Duvha Power Station – U2 FFP		
11.2(16)	The Site Information is in	Part 4: Site Information		
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.		
12.2	The law of the contract is the law of	the Republic of South Africa		
13.1	The language of this contract is	English		
13.3	The period for reply is	5 working days		
2	The Contractor's main responsibilities	Contained in " Contractor's works information"		
3	Time			
11.2(3)	The completion date for the whole of the works is	2022-06-31 (Subject to change due to PTW and other FFP plant constraints)		
11.2(9)	The key dates and the conditions to be met are:	Condition to be met key date		
		1 Submission and approval of a program Weeks after contract awarded		
		2 Kick off meeting Weeks after contract awarded		
		3 Site establishment Weeks after contract awarded		

		4	Execution as per the scope	As per the signed program	
		5	Commissioning	As per the signed program	
		6	De-establishment and hand over	As per the signed program	
30.1	The access dates are:	Pa	rt of the Site	Date	
		1	Duvha Power station U2 FFP	After contract award	
		2	Whole of the Site	After all material to be installed arrives on site and program submitted.	
31.1	The Contractor is to submit a first programme for acceptance within	1 w	reeks of the Contract Date.		
31.2	The starting date is	2021-06-30 Subject to change			
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	3 w	veeks.		
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.				
4	Testing and Defects				
42.2	The defects date is		52 weeks after Completion of the whole of the works.		
43.2	The defect correction period is	2 weeks except in those circumstances where correction in such period is not practical, in which case the defect shall be corrected by the contractor within such time as mutually agreed by both parties.			
5	Payment				
50.1	The assessment interval is	on the 25th of each successive month.			
51.1	The currency of this contract is the	So	uth African Rand.		
51.2	The period within which payments are made is	4 w	reeks.		
51.4	The interest rate is	of cha	zero percent the publicly qu interest (calculated on a arged from time to time b nk of South Africa Limited	365 day year) y the Standard	

8	Risks and insurance			
80.1	These are additional <i>Employer</i> 's risks		Availability of an AP/RP     safety risk	
			2. Warranty- contractor workmanship guarantee after installation	
			<ul><li>3. Access to plant</li><li>4. PTW availability</li></ul>	
84.1	The Employer is to provide insurances as stated in the Insurance Table INSURANCE TABLE			
	Insurance against	1	amount of cover or minimum	
	Assets All Risk	As per the	insurance policy document.	
	Project insurance	As per the	insurance policy document.	
	Environmental Liability	As per the	insurance policy document.	
	General and Public Liability	As per the insurance policy document.		
	Transportation (Marine)	As per the insurance policy document.		
	Motor Fleet and Mobile Plant	As per the insurance policy document.		
	Terrorism	As per the insurance policy document.		
	Cyber Liability	As per the insurance policy document.		
84.1	The <i>Contractor</i> provides the insurances stated in the Insurance Table.  The insurances provide cover for events which are at the <i>Contractor's</i> risk from Defects Certificate or a termination certificate has been issued.  INSURANCE TABLE			
	Insurance against		Minimum amount of cover or	
	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 at contract date, where covered by the <i>Employer</i> 's insurance.	
	Loss of or damage to Equipment		The replacement cost	
	Liability for loss of or property (except the		Loss of or damage to property	
	and Materials and Eq and liability for bodily death of a person (no	uipment) injury to or t an	The replacement cost where not	
	employee of the <i>Contractor</i> ) caused by activity in connection with this contract		The Employer's policy deductible as at contract date, where covered by the <i>Employer</i> 's insurance.	

	Liability for death of or bodily injury to employees of the Contractor arising out of and in the course of their employment connection with this contract	Other property The replacement cost.  Bodily injury to or death of a person The amount required by applicable law. The amount required by the applicable law. in	
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.	
10	Data for main Option clause		
A	Priced contract with activity schedule	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.	
11	Data for Option W1		
W1.1	The Adjudicator is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see <a href="https://www.ice-sa.org.za">www.ice-sa.org.za</a> ). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).	
	Address	[•]	
	Tel No.	[•]	
	Fax No.	[•]	
	e-mail	[•]	
W1.2(3)	The Adjudicator nominating body is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See <a href="https://www.ice-sa.org.za">www.ice-sa.org.za</a> ) or its successor body.	
W1.4(2)	The tribunal is:	arbitration.	
•	•		

W1.4(5)	The arbitration procedure is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.			
	The place where arbitration is to be held is	[•] South Africa			
	The person or organisation who will choose an arbitrator  • if the Parties cannot agree a choice or  • if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.			
12	Data for secondary Option clauses				
X2	Changes in the law	Option and	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X5	Sectional Completion	As per approved task order			
		Section (task order)  1.  2.	Description  Submission of:  a) Safety file for approval  b) Programme for approval.  c) QCP's.  Site establishment  Supply and deliver material.  Installation & Testing		
		3.	a) Site de-establishment		
X7	Delay Damages		n activity completed according to capped at 10% of contract value,		

		based on the submitted program – key milestone dates		
X16	Retention	5% of the contract value amount		
X17	Low performance damages			
X17.1	The amounts for low performance damages are:			
	Submissions of the signed of QCP with R1000 per day for non-compliance)	Submissions of the signed of QCP within a week of the completion of an activity (penalty of R1000 per day for non-compliance)		
	The contractor needs to have an RP trained and authorised within 3 months of the contract (penalty of R1000 per day for non-compliance until the contractor complies).			
	Submission of all data packs 2 weeks per day for non-compliance)	s after the final work is complete. (penalty of R1000		
		be signed and submitted to the Project Manager work. A penalty of R2000 per day will be charged for		
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's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	the amount of the deductibles relevant to the event described in the insurance policy format selected in the data for clause 84.1 above, which policy is available on http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx		
X18.3	The Contractor's liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of the total of the Prices at the Contract Date and the amounts excluded and unrecoverable from the <i>Employer</i> 's assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus R15M first amount payable in terms of the <i>Employer</i> 's assets policy.		
X18.4	The Contractor's total liability to the Employer for all matters arising under or in connection with this contract, other than	the total of the Prices other than for the additional excluded matters.		
	excluded matters, is limited to:	The Contractor's total liability for the additional excluded matters is not limited.		
		The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for		
		<ul> <li>Defects due to his design which arise before the Defects Certificate is issued,</li> <li>Defects due to manufacture and fabrication outside the Site,</li> </ul>		

Z3.1	Where a change in the <i>Contractor's</i> legal status, ownership or any other change to his business composition or business dealings results in a change to the <i>Contractor's</i> B-BBEE status, the <i>Contractor</i> notifies the <i>Employer</i> within seven days of the change.
Z3.2	The <i>Contractor</i> is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the <i>Project Manager</i> within thirty days of the notification or as otherwise instructed by the <i>Project Manager</i> .
Z3.3	Where, as a result, the <i>Contractor's</i> B-BBEE status has decreased since the Contract Date the <i>Employer</i> may either re-negotiate this contract or alternatively, terminate the <i>Contractor's</i> obligation to Provide the Works.
Z3.4	Failure by the <i>Contractor</i> to notify the <i>Employer</i> of a change in its B-BBEE status may constitute a reason for termination. If the <i>Employer</i> 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 <i>Contractor</i> 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 <i>Contractor</i> , enters the public domain or to information which was already in the possession of the <i>Contractor</i> at the time of disclosure (evidenced by written records in existence at that time). Should the <i>Contractor</i> disclose information to Others in terms of clause 25.1, the <i>Contractor</i> ensures that the provisions of this clause are complied with by the recipient.
Z4.2	If the <i>Contractor</i> is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the <i>Project Manager</i> .
Z4.3	In the event that the <i>Contractor</i> is, at any time, required by law to disclose any such information which is required to be kept confidential, the <i>Contractor</i> , to the extent permitted by law prior to disclosure, notifies the <i>Employer</i> 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 <i>Contractor</i> 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 <i>works</i> or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the <i>Project Manager</i> . All rights in and to all such images vests exclusively in the <i>Employer</i> .
Z4.5	The Contractor ensures that all his subcontractors abide by the undertakings in this clause.
<b>Z</b> 5	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 <i>Project Manager</i> , the <i>Supervisor</i> , or the <i>Adjudicator</i> 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.
<b>Z</b> 6	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

	<ul> <li>provided for under the Construction Regulations 2014 (promulgated under the Occupational Health &amp; Safety Act 85 of 1993) ("the Construction Regulations") for the Site;</li> <li>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 &amp; 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 &amp; safety in and about the execution of works; and</li> <li>undertakes, in and about the execution of the works, to comply with the Construction Regulations and with all applicable health &amp; safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the Contractor's direction and control, likewise observe and comply with the foregoing.</li> </ul>
Z6.2	The <i>Contractor</i> , in and about the execution of the <i>works</i> , complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the <i>Contractor's</i> direction and control, likewise observe and comply with the foregoing.
<b>Z</b> 7	Provision of a Tax Invoice and interest. Add to core clause 51
Z7.1	Within one week of receiving a payment certificate from the <i>Project Manager</i> in terms of core clause 51.1, the <i>Contractor</i> provides the <i>Employer</i> with a tax invoice in accordance with the <i>Employer</i> '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 <i>Contractor</i> does not provide a tax invoice in the form and by the time required by this contract, the time by when the <i>Employer</i> 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 <i>Employer</i> 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 <i>Project Manager</i> should have notified the event to the <i>Contractor</i> but did not".
<b>Z</b> 9	Employer's limitation of liability
Z9.1	The <i>Employer's</i> liability to the <i>Contractor</i> for the <i>Contractor's</i> 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)

ESKOM HOLDINGS SOC Ltd CONTRACT NO. \_\_\_\_\_

#### REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 2 FABRIC FILTER PLANT

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

#### Z12 Ethics

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

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* 

or a third party, such party's employees, agents, or Subcontractors or

Subcontractor's employees, or any one or more of all of these parties' relatives or

friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the

property of an Affected Party, or to otherwise influence or attempt to influence an

Affected Party to act unlawfully or illegally,

Collusive Action means where two or more parties co-operate to achieve an unlawful or illegal

purpose, including to influence an Affected Party to act unlawfully or illegally,

Committing Party means, as the context requires, the *Contractor*, or any member thereof in the case of

a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's

employees,

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or

service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or

attempts to mislead, an Affected Party, in order to obtain a financial or other benefit

or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or

concealing information or making false statements to materially impede an

investigation into allegations of Prohibited Action and

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

Fraudulent Action or Obstructive Action.

Z 12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

- Z 12.2 The *Employer* may terminate the *Contractor*'s obligation to Provide the Works 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 Works for this reason.
- Z 12.3 If the *Employer* terminates the *Contractor*'s obligation to Provide the Works for this reason, the procedures and amounts due on termination are respectively P1, P2 and P3, and A1 and A3.
- Z 12.4 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.

# 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 <u>more adverse</u> than the amount stated below then the *Contractor* may notify a compensation event.

	Weather measurement			
Month	Average Rainfall (mm)	Average Number of days with rainfall	Absolute High [Low] temperature (C)	Average midday High [Low] temperature (C)
January	138	11	34 [5]	25 [13]
February	89	7	34 [8]	25 [13]
March	75	7	33 [5]	24 [12]
April	52	5	29 [1]	23 [10]
May	9	2	26 [-6]	20 [6]
June	23	2	24 [-3]	18 [4]
July	6	1	25 [-5]	18 [3]
August	11	2	28 [-6]	21 [5]
September	25	3	31 [-2]	24 [8]
October	96	8	33 [0]	25 [10]
November	120	10	33 [-2]	25 [11]
December	159	10	31 [0]	25 [13]

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

# Annexure B: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. The Contractor must obtain its own advice. Details of the insurance itself are available from the internet web link given below.

1. For the purpose of works contracts, insurance provided by Eskom (the *Employer*) has been arranged on the basis of "project" or "contract" value, where the value is the total of the Prices at Completion of the whole of the works including VAT.

A "project" is a collection of contracts or work packages to be undertaken as part of a single identified capital expansion or refurbishment of a particular asset or facility.

A "contract" is a single contract not linked to or being part of a "project".

2. For ECC3 there are three main "formats" of cover and deductible structure; Format A, Format B and Format Dx.

**Format A** is for a project or contract value less than or equal to R350M (three hundred and fifty million Rand) inclusive of VAT.

Format B is for a project or contract value greater than R350M .(three hundred and fifty million Rand) inclusive of VAT.

In the case of contracts / packages within a project:

- For a contract / package of R50M which is part of a R400M project, Format B will apply
- For a contract / package of R250M which is part of a R6 billion project, Format B will apply;
- For a contract / package of R120M which is part of a R350M project Format A will apply;

For a contract which is not part of a project the same limits apply:

- For a contract of R50M, Format A will apply
- For a contract of R355M, Format B will apply.

**Format Dx** applies only to Distribution Division projects and contracts. If a Distribution Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover. Cover and deductibles for Distribution Division are per the relevant policy available on the internet web link given below.

**Format A generally applies to Transmission Division** projects and contracts. If a Transmission Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover.

- 3. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 84.2. In terms of clause 84.1 "the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
- 4. When the Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
- 5. Further information and full details of all Eskom provided policies and procedures may be obtained from:

http://www.eskom.co.za/live/content.php?ltem\_ID=9248

# Annexure C: The *Employer*'s Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)
Nigel ANDREWS	Gauteng	+27 11 836-6760 nigela@quoin.net
Andrew BAIRD	Gauteng	+27 11 803 3008 andrewbaird@ecsconsult.co.za
Christopher BINNINGTON	Gauteng	+27 11 888-6141 cdb@bca.co.za
Peter HIGGINS	UK	+44 1293 873 868 peterhiggins@pdconsult.co.uk
Bruce LEECH	Gauteng	+27 11 290 4000 leech@counsel.co.za
Nigel NILEN	Gauteng	+27 11 465 3601; nilences@global.co.za
Peter THURLOW	Gauteng	+27 11 787 6226 info@thurlowassoc.com

Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations management, by contacting Leighton Itholeng (Tel.: +27 (0)11 800 4031) (Fax:+27 (0)86 668 0419) E-mail: <a href="Leighton.Itholeng@eskom.co.za">Leighton.Itholeng@eskom.co.za</a>

# PART 2: PRICING DATA ECC3 Option A

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

# C2.1 Pricing assumptions: Option A

# How work is priced and assessed for payment

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

Identified and 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:

Item No.	Activity description	Price
1.	1 X Quality Controller	
2.	4 X Supervisors for 24 hour	
3.	Transportation (cages and filter bags from staithes /bag stores to unit2)	
4.	2 X Safety officers	
5.	P&G's	
6.	SHE Requirements	
7.	Removal of old support cages	
8.	Removal of old filter bags	
9.	Disposal of old bags and other refuse	
10.	. Installation of new support cages	
11.	Installation of new filter bags	
12.	Lime-coating activity	
13.	Site Establishment	
14.	Site De-establishment	
	Total for complete turnkey installation	

**NOTE:** The successful supplier must subcontract 2X Authorised Responsible Persons(RP) authorised at Duvha Power Station for Fabric Filter Plant even when they are working for other suppliers to assist for the duration of the contract.

The supplier will not be obliged to employ the candidate after the contract has expired.

# C2.2 the activity schedule

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

# **PART 3: SCOPE OF WORK**

Document reference	Title: REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 2 FABRIC FILTER PLANT (FFP)	No of pages
	This cover page	1
C3.1	Employer's Works Information	
C3.2	Contractor's Works Information	
	Total number of pages	

# **C3.1: EMPLOYER'S WORKS INFORMATION**

# **Contents**

Offer Error! Book		
Acceptance Error! Book		
The Contractor ensures that all workers under his control strictly adhere to the correct u	se of refuse bins: 7	
Maroon bins: - Scrap metal only	7	
White bins: - Lagging and general household rubbish	7	
Yellow bins: - Ash, dust, coal dust and sand	7	
The contractor shall provide a site supervisor or project manager to supervise, monitor,		
ordinate all activities during the execution of the project.		
7 List of drawings		
7.1 Drawings issued by the <i>Employer</i>		
Part 4: Site Information		
Part 4: Site Information	23	
24.1: Information about the site at time of tender which may affect the work in this contract		

# 1 Description of the works

# 1.1 Executive overview

Replacement of Fabric Filter Bags for Unit 2 Fabric Filter Plant (FFP).

# 1.2 Employer's objectives and purpose of the works

The works is inclusive of all activities necessary for the provision of suitable products that will be used to execute the above scope, all works to be completed according to the Eskom safety standards.

# 1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

1. Abbreviation	2. Description
PSR	Plant Safety Regulations
RP	Responsible Persons
QCP	Quality Control Plan
OSH Act	Occupational Health and Safety Act
ENVP0005	Eskom's Waste Management Procedure
SAMTRAC	Safety Management Training Course
FFP	Fabric Filter Plant
PPS/P84	Poly-P-Phenylene Sulfide

# 2 Management and start up.

# 2.1 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 compensation events	Weekly on Mondays at 10am	TBC	Project Manager, Contractors Supervisor and whoever will be required
Overall contract progress and feedback	Weekly on Fridays at 10am	TBC	Project Manager, Contractors Supervisor and whoever will be required
Ad hoc meetings	Anytime	TBC	Project Manager, Supervisor and whoever will be required
Toolbox Talk Meeting	Daily	On site	All workers chaired by Supervisor
Safety and quality Meeting	Monthly	On site	All workers chaired by Supervisor

Meeting 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 can be used for the purpose of confirming actions or instructions under the contract.

# 2.2 Documentation control

- The Contractor's site manager must keep a daily log, which needs to be signed by the Employer's Supervisor daily.
- PM-C-01 "PM" denotes the source (Project Manager), "C" denotes the recipient (Contractor), "01" denotes the communication number (first communication).

# 2.3 Health and safety risk management

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

- a) The Contractor complies with the requirements of the Duvha Power Station Safety, Health & Environmental Specifications SAS 0012: Duvha Power Station Contractors safety manual
- b) The documents are completed by the *Contractor's* and submitted to the *Employer* before taking possession of the works.
- c) These documents are valid for the duration of the works.
- d) The Contractor and all his personnel attend a Health and Safety Induction Course prior to starting with the works.
- e) The induction course is presented by the Safety Risk Department at Duvha Power Station.
- f) The Contractor makes arrangements with Safety Risk Management at telephone number 013-690-0143.
- g) The *Contractor* submits all the documents as indicated in the Safety, Health & Environmental Specifications relevant to the work to Safety Risk Management before the induction course.
- h) The *Contractor* completes all appointments required and ensures that the appointee and appointees fully understand their responsibilities and are competent and trained to execute their duties.
- The appointees/appointee ensures that all duties are carried out and records are kept by the Contractor for review/audit by the Employer or Inspector of Machinery.
- Management has the right and authority to visit and inspect the Contractor's work place or Site establishment.
- k) The *Contractor* supplies and ensures that his employees wear the necessary PPE according the risk assessments performed on the specific tasks to be carried out.
- I) The *Contractor* ensures that everyone entering Duvha Power Station under his supervision is medically, physically and psychologically fit to enter Duvha Power Station.
- m) The medical examination, at the *Contractors* cost, is carried out by a Registered Professional Occupational Health Practitioner and the examination shall include the following tests:
- n) Eye Test, Blood Pressure,
- o) Heart Function,
- p) Hearing Test and
- q) Lung Function.
- r) A thorough examination is done and previous physical injuries, as well as occupational diseases/complications are covered.
- s) If at any point in time during the execution of the *works*, the *Contractor* has a radiation-related incident/exposure, the onus is on the *Contractor* to immediately notify the *Employer*, the Medical Station, the Risk Manager and the Safety Risk Management Department.
- t) The onus thereafter is for the *Contractor* to immediately arrange, at his/her cost, for blood samples to be taken by a Registered Laboratory and for this sample to be sent to the Accelerator Laboratory in Cape Town for full radiation exposure tests. This test results are then to be discussed with the Duvha Occupational Health Practitioners, who will then advise the Power Station Management on the risk, if any, of the incident/exposure.

- u) The Contractor takes full responsibility and accountability for all other people/staff/personnel/labour that he/she employs or utilises, whether in full-time/parttime/contract basis, in executing the works or other work whilst on the Employers premises.
- v) The *Contractor* ensures that Safety Harnesses are used for all work carried out in elevated positions, as defined in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations.
- w) All safety equipment or Machinery used complies with the SANS Codes of Quality and Practice or any Code as stipulated in the Occupational Health and Safety Act, No 85 of 1993, and any amendments thereto.
- x) The *Contractor* at all times consider himself as "Employer" as defined in the Occupational Health and Safety Act, No 85 of 1993 and do not consider himself as under supervision or management of the *Employer* with regard to Health and Safety Requirements but only from a Commercial Contractual Condition of Contract. Under no circumstances does the *Contractor* consider himself a sub-ordinate or being given supervision.
- y) The *Contractor* provides and maintains his own facilities as required in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations, if not agreed contractually or arranged by the *Employer*.
- z) The *Contractor* has Safety Systems in place at his premises for the total contract period and these shall include the following:
- aa) Safety Management Structure and Compliance to these
- bb) Statutory Appointments
- cc) Records and documentation of all Risk and Hazard Analyses.
- dd) Planned Job Observations Records and Documents.
- ee) Employment history and records of all personnel, part-time or full-time or contract labour.
- ff) Medical History of all personnel, part-time or full-time or contract labour
- gg) Training and Competency Records with regard to Safety, Health and Environment.
- hh) Training and Competency Records with regard to the skills he uses to carry out the *works* or any other works in the *Employers* premises.
- ii) Compensation Commissioner Records and proof of registration.
- jj) Records and documentation with regard to any sub-contractor or labour-only contracts he places or uses to carry out the *works* or any other works in *Employers* premises.
- kk) Personal Protective Equipment and Safety Equipment Inspection, training and competency records and documentation.
- II) Employment contracts for all sub-contractor or labour-only contracts.
- mm) Compliance to a Safety System, such as NOSA or any other system that is similar in nature.
- nn) Records of all incidents or accidents, and vehicle accidents, incurred during execution of this works or any other works in the *Employers* premises.
- oo) Records of all man-hours, including sub-contractors or labour-only contracts, the *Contractor* spends on the *Employers* premises.
- pp) Written Safe Work Procedures for all hazardous tasks the *Contractor* executes on the Employers premises.
- qq) A Fall Protection Plan for all elevated work the Contractor does on the Employers premises.
- rr) Environmental plan and awareness training.
- ss) Induction training records of his staff by himself/herself.
- tt) Minimum wage compliance for the different skills and to which Bargaining Council compliance is made to and proof of membership, if any.
- uu) Risk Assessment of this type of works
- vv) Proof of authorisation/accreditation from Department of Labour and or other Statutory Body for this type of works, if applicable
- ww)Emergency Evacuation and Rescue Plan for the hazardous tasks related to the works.

The Contractor shall comply with the health and safety requirements contained in this Works Information.

## 2.4 Environmental constraints and management

The Contractor ensures that all workers under his control strictly adhere to the correct use of refuse bins:

Maroon bins: - Scrap metal only

White bins: - Lagging and general household rubbish

Yellow bins: - Ash, dust, coal dust and sand.

# 2.5 Quality assurance requirements

The Contractor shall be required to read and fully understand the contents of the Supplier Contract Quality Requirement Specification (QM58). The contractor may be subjected to scheduled assessments and/or audits if the Employer deems it necessary. Fundamentally the contractor shall comply with the Eskom Quality management procedures and processes applicable to this project. The QM58 guide will be made available upon request.

# 2.6 Programming constraints

The *Contractor* submits a programme within 1 week of the Contract Award. The program shall be in Microsoft Excel/MSProjects or MicrosoftWord format

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

# 2.7 Contractor's management, supervision and key people

The contractor shall provide a site supervisor or project manager to supervise, monitor, control and coordinate all activities during the execution of the project.

# 2.8 Invoicing and payment

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

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

Name and address of the Contractor and the Project Manager;

The contract number and title;

Contractor's VAT registration number;

The Employer's VAT registration number 4740101508;

Description of service provided for each item invoiced based on the Price List;

Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

All invoices should be submitted to our accounts department electronically and copy the Project Manager.

#### 2.9 Contract change management

The contract or the Project Manager notifies each other of any event which may lead to a change in agreed terms as per NEC3.

ESKOM HOLDINGS SOC LTD CONTRACT NUMBER REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FABRIC FILTER PLANT (FFP) 2.10 Records of Defined Cost, payments & assessments of compensation events to be kept by the Contractor The contractor may keep records of payments, assessments of compensation events if he deems it necessary. 2.11 Training workshops and technology transfer N/A 3 Engineering and the Contractor's design N/A 3.1 Employer's design. N/A 3.2 Parts of the works which the Contractor is to design N/A 3.3 Procedure for submission and acceptance of Contractor's design N/A 3.4 Other requirements of the Contractor's design N/A 3.5 Use of Contractor's design N/A

3.6 **Design of Equipment** 

N/A 3.7

N/A

Equipment required to be included in the works

3.8 As-built drawings, operating manuals and maintenance schedules N/A

## 4 Procurement

The *Contractor* shall comply with Basic Condition of Employment Act and Labour Relation Act for the use of labour in executing the works to give effect to the right to fair labour practices referred to in section 23(1) of the Constitution by establishing and making provision for the regulation of basic condition of employment, and thereby to comply with the obligations of the Republic as a member state of the Internal Labour Organisation, and to provide matters connected therewith

# 4.1 People

#### 4.1.1 Minimum requirements of people employed on the Site

People providing the works will have been declared competent in writing to carry out the works. They will abide by all the rules and regulations as set out by Duvha Power Station. They are prohibited from being or going to any other site other than the one where the work is being executed.

## 4.1.2 BBBEE and preferencing scheme

Eskom's policy is to maximise purchases from Black or Black Empowering Enterprises (BEE's) whether Black Woman-owned, small or Large Black or Black empowering suppliers. The purpose is to promote entrepreneurship in black communities and give black business access to the mainstream of business opportunity

# 4.1.3 Accelerated Shared Growth Initiative - South Africa (ASGI-SA)

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor's* ASGI-SA Compliance Schedule IT 1.2 ASGI-SA requirements.

## 4.2 Plant and Materials

## 4.2.1 Quality

- a) All work is carried out under the supervision of an experienced supervisor.
- b) The *Contractor* complies with the *Employer*'s Quality Requirements as specified in Eskom Generation Standard GGS 0462. The Contractor, when using materials that are required to comply with a standard specification
- c) Shall, if so ordered, furnish the Engineer with certificates showing that the materials do so comply.
- d) Where so specified, materials shall bear the official mark of the appropriate standard.
- e) Samples ordered or specified shall be delivered to the Engineer's office on site.
- f) Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the published instructions of the relevant manufacturer.
- g) All quality control documentation is submitted to the *Project Manager* within 7 days of Contract date.

#### 4.2.2 Plant & Materials provided "free issue" by the Employer

- a) The Employer will provide power supply, water and land for the storage of equipment and material.
- b) The *Contractor shall* supplies all the necessary equipment and material required to execute the *works*, including portable ablution facilities and eating facilities for their employees.

Should the *Contractor* require using of any of the *Employer's* Equipment, including compressed air, electricity, water supply and crane age, it must be specified in the Works Information supplied by the *Contractor*. The *Employer* does not guarantee continuity of supply of any of these items.

# 4.2.3 Contractor's procurement of Plant and Materials

The Contractor shall make use SABS approved plant and material. Test certificates shall be given to the project manager.

# 4.2.4 Spares and consumables

N/A

# 4.3 Tests and inspections before delivery

N/A

# 4.4 Marking Plant and Materials outside the Working Areas

All plant and materials outside working areas are to be marked "for contractor" until such time that they are tested and installed at the site/plant.

# 4.5 Contractor's Equipment (including temporary works).

N/A

# 5 Construction

# 5.1 Temporary works, Site services & construction constraints

#### 5.1.1 Employer's Site entry and security control, permits, and Site regulations

- a) The contractor applies for access permits for all works exceeding two (2) weeks via the Project Manager, who will co-ordinate this.
- b) The *Contractor* applies for *Contractor's* Permits for all his employees and/or subcontractors at the Security gate, at least 24 hours prior to entry of the Duvha Power Station Security Area. .
- c) The *Contractor* completes the specific form in the Duvha Power Station Contractors Safety Manual, listing all of the personnel that he intends using on site.
- d) The completed list, identified with the *Contractor's* name, contains the following information:
  - Employee Name
  - Employee ID Number
  - Eskom Safety Co-ordinator signature
  - Eskom Project Manager Signature
  - Validity Date
- e) No permits are issued to personnel who have not attended safety induction.
- f) The Contractor photocopies the first page of the ID book of every one of his employees; reduced to the size 65%.
- g) This completed list, together with the photocopies of the ID books is delivered to Protective Services for the preparation of the *Contractor's* Permits.
- h) The *Contractor* allows at least 24 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices.
- i) The *Contractor's* personnel are required to be in possession of a *Contractor's* Permit at all times inside Duvha Power Station.
- j) All Contractors' permits are submitted back to Protective Services when the workers leave the site after completion of the works. Failure returns the permits will result in a R25, 00 penalty for each non returned permit.
- k) The *Contractor* compiles detailed Tool Lists (obtainable from Protective Services) of all tools and equipment to be taken on site before arriving at the power station.
- Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site.
- m) The *Contractor's* visitors and all personnel conform to the security arrangements in force at Duvha Power Station.
- Application forms for visitors are filled in by the Contractor's Site Manager and approved by the Project Manager, and submitted to the Employer's Protective Services office one day prior to the visit
- Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.

- p) The Chief Security Officer may, with valid cause, remove any of the Contractor's personnel from the site, either temporarily or permanently. He may deny access to the site to any person whom, in the opinion of the said Chief Security Officer, constitutes a security risk.
- q) No unauthorised vehicles will be allowed on site. Only Contractor's vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications are directed to the Project Manager for consideration and approval.
- r) The *Contractor* is restricted to the Site. The *Contractor* is forbidden to enter any other areas, and ensures that his employees abide by these regulations.
- s) Parking inside the power station is strictly forbidden, except for loading purposes.
- t) No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate.
- Security personnel may search any premises, property or person within the security area of Duvha Power Station
- v) No Photographic equipment will be allowed within the security area of the Power Station without obtaining permission.
- w) Application forms for such permission is available from the Protective Services offices.
- x) Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act.
- y) The contractor technicians and artisan must have control & instrumentation qualifications and experience.

# 5.1.2 Restrictions to access on Site, roads, walkways and barricades

- a) Pedestrian crossing are make on the road they should be used when crossing the road
- b) Inside the plant walkways are clear makes they should be used when walking inside the plant to keep safe on any object that might fall.
- c) Barricades are provided where there are open trenches and around the sumps and manholes.
- d) The contractor shall occupy only such ground as is necessary to carry out the works.

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

- a) The LAR is for the person in charge of the plant to maintain control over activities taking place on his plant that are not covered by the Plant Safety Regulation and Operating Regulations for High Voltage Systems.
- b) Activities that are allowed to be carried out under the LAR must not require a permit and must satisfy the following criteria:
- c) They must not involve danger to the person carrying out the activity;
- d) No plant isolations must be required;
- e) The activity must be performed by a skilled person and there must be no risk of a production loss;
- f) The duration of the activity must be less than 24 hours
- g) The Supervisor accompanies the Contractor during the first instances of working under a LAR on a specific plant area.
- h) It is very important that the person who plans to do an activity on a plant under the LAR informs the person in charge of the plant (ASS on the panel or PPO at WTP) of what will be done.
- i) This means verbally telling the person in charge of the plant what will be done and not just signing the LAR book. The LAR book is also signed.
- j) It is also important that as soon as the activity is completed the person, who was doing the activity, notify (verbally) the person in charge of the plant that conditions are back to normal and that the LAR has been signed off. Just signing the LAR book is not sufficient.
- k) For more information please refer to Plant Safety Regulation.

#### 5.1.4 Health and safety facilities on Site

(a) The Contractor provides a First Aid service to his employees and sub-Contractor. In the case where these prove to be inadequate, like in the event of a serious injury, the Employer's Medical Centre and facilities will be available.

- (b) Outside the Employer's office hours, the Employer's First Aid Services will only be available for serious injuries and life threatening situations. The Employer shall be entitled, however, to recover the costs incurred, in the use of the above Employer's facilities, from the Contractor.
- (c) The Contractor to ensure that qualified and competent First Aiders and Emergency Care staff is permanently on site and at actual construction site for emergency situations, as and when they arrive.

The *Contractor* or his staff shall not move the injured party from the incident position and site unless the person/s life is in danger or the person is moved by a qualified and trained Emergency Care Worker.

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

- a) No fauna or flora will be collected or removed from any farm by any visitor without written permission of the landowner, in which case cognizance will be taken of appropriate provincial legislation pertaining to fauna and flora.
- b) Under such cases Eskom Holding's ethical policies and guidelines will be strictly applied.

#### 5.1.6 Cooperating with and obtaining acceptance of Others

- a) The Contractor shall co-operate with others in obtaining and providing information which they need in connecting with the works.
- b) The Contractor shall share the working area with others in executing the works.

The contractor cooperates with others in obtaining and providing information which they need in connection with the works.

## 5.1.7 Publicity and progress photographs

a) Should publicity and or progress photographs be required an application shall be made via the Project Manager.

#### 5.1.8 Contractor's Equipment

- a) The Contractor's attention is drawn to the applicable regulation framed under the Machinery and Occupational Safety Act, 1983 (Act No. 6 OF 1983)
- b) When working in built-in areas , the contractor shall provide and use suit able and effective silencing devices for pneumatic tools and other plant would otherwise cause a noise level exceeding 85 Db(A) during excavation and other works.
- c) Alternatively the Contractor shall by means barriers, effectively isolate the source of any such noise in order to comply with the said regulation.

# 5.1.9 Equipment provided by the *Employer*

- a) Should the Contractor require using of any of the Employer's Equipment, including compressed air, electricity, water supply and crane age, it must be specified in the Works Information supplied by the Contractor. The Employer does not guarantee continuity of supply of any of these items.
- b) The *Employer* shall be entitled to withdraw use of the said Equipment, should proper maintenance and cleanliness not be ensured. In that event, the *Contractor* shall be obliged to provide the necessary Equipment at his own cost.
- c) The *Contractor* is responsible for the repair, replacement or correction as necessary of all pieces of tools and equipment supplied by the *Employer* which are damaged and / or lost whilst in the *Contractor*'s custody and control.

### 5.1.10 Site services and facilities

# a) Potable Water Supply

Potable water is available at the existing points.

# b) Electrical Power Supply

Power is available at the existing points.

# c) Toilet Facilities

The Employer provides the Contractor access to existing toilet facilities.

### d) Catering Facilities

- The Contractor are not allowed to use the Employer's dining facilities, unless a specific agreement has been made between the Contractor and Eskom Catering and Accommodation Services (ECAS).
- The Contractor may buy take away meals from the fast foods outlet on Site.

#### e) Medical Facilities

- The Contractor provides a First Aid service to his employees and subcontractors. In the case
  where these prove to be inadequate, like in the event of a serious injury, the Employer's Medical
  Centre and facilities will be available.
- Outside the *Employer's* office hours, the *Employer's* First Aid Services are only available for serious injuries and life threatening situations.
- The Employer recovers the costs incurred, in the use of the above Employer's facilities, from the Contractor

# 5.1.11 Facilities provided by the *Contractor*

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

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

The Contractor will cooperate with others who might be working in adjacent premises.

# 5.1.13 Survey control and setting out of the works

Regular plant walks on safe work execution and production will be carried out by the Project Manager randomly.

# 5.1.14 Control of noise, dust, water and waste

Earplugs should be worn if excessive noise will be generated by machinery. Dust masks will be worn to prevent dust inhalation.

# 5.1.15 Giving notice of work to be covered up

Project Manager to be notified about any issues that poses a risk to the plant or employees before any specific task in relation to that risk is undertaken.

# 5.1.16 Hook ups to existing works

- a) The Contractor must inform the project manager and the engineer if a need arise of hooking up on existing work.
- b) The project engineer will then verify the safe use of any existing structure as a support.

# 5.2 Completion, testing, commissioning and correction of Defects

# 5.2.1 Work to be done by the Completion Date

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

Item of work	To be completed by	
As built drawings of	Within days after Completion	
Performance testing of the <i>works</i> in use as specified in paragraph of this Works Information.	See performance testing requirements.	

# 5.2.2 Use of the works before Completion has been certified

The Employer will take over the completed cells after commissioning without any defects.

# 5.2.3 Materials facilities and samples for tests and inspections

# 5.2.4 Commissioning

- The Contractor shall conduct commissioning under the supervision of the Project Manager and Engineer.
- The Contractor shall carry out sufficient checks to satisfy himself that the material use and the workmanship comply consistently with the specified requirement.

### 5.2.5 Start-up procedures required to put the works into operation

# 5.2.6 Take over procedures.

Takeover will be on or before the Completion Date. The *Contractor* shall have done everything required to provide the works and the Engineer has done all the necessary inspections and the approval of the works done.

# 5.2.7 Access given by the *Employer* for correction of Defects

The Project Manager issues the defects certificate at the later defect date and the end of the last defect correction period. The Employer's right in respect of the defect which the supervisor has not found and notified are not affected by the issue of the defect certificate.

The Contractor contacts the Project Manager to gain access to the site to correct defects.

### 5.2.8 Performance tests after Completion

Duvha Quality department together with the Project Manager, Engineer and Contractor will sign off the works as having met all the requirements as set out in the works information after completion.

# 5.2.9 Training and technology transfer

N/A

ESKOM HOLDINGS SOC LTD	CONTRACT NUMBER
REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FA	ABRIC FILTER PLANT (FFP)

# 5.2.10 Operational maintenance after Completion

The contractor accepts full responsibility once he executes the works that the quality of workmanship will last for the minimum operational duration as stated in the data packs after project completion and commissioning.

ESKOM HOLDINGS SOC LTD	CONTRACT NUMBER
REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FA	BRIC FILTER PLANT (FFP)

# 6 Plant and Materials standards and workmanship

# 6.1 Dealt with in the scope of work Investigation, survey and Site clearance

Thorough site inspection will take place with Contractor, Project Manager and System Engineer in attendance prior to commencement of work on site.

# 6.2 Electrical & mechanical engineering works

All engineering works, electrical and mechanical will be carried out according to Plant Safety Regulations (Permit to Works System) and any other station specific rules and regulations.

# 7 List of drawings

# 7.1 Drawings issued by the Employer

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

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

Drawing number	Revision	Title
***************************************		

# C3.2 CONTRACTOR'S WORKS INFORMATION

# **SCOPE OF WORK**

This document provides the scope for the Replacement of Fabric Filter Bags for Unit 2 Fabric Filter Plant (FFP).

### 1. DESCRIPTION OF THE WORK-HIGH LEVEL SCOPE OF WORK

- The removal of the complete set of used fabric filter bags (27000) from the Fabric Filter Plant of Unit 2 on cells A, B, C and D.
- The disposal of the old used bags, which is classified as class 1 hazardous waste, to an approved disposal site.
- The disposal of the old used bag cages to an approved disposal site

REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FABRIC FILTER PLANT (FFP)

- 2.4 The recovery of all the bottom steel caps and the top support rings to a predetermined storage area.
- The installation of 27000 new PPS/P84 filter bags and new 27000 complete bag cage (2 parts)
- The pre-coating of each cell with 16 tons of hydrated lime as per the ESKOM precoating Procedure.

#### 2. WORK TO BE PERFORMED BY THE CONTRACTOR FOR THE WORK

The contractor must have at least two (2) Responsible Persons (RP) authorized to work on the FFP with valid Duvha PSR authorization for the duration of the project.

The work is for the replacement of a complete set of used filter bags (27000) with a new free issue set of filter bags (27 000 new PPS/P84 filter bags) and new free issue filter bag cages on the Fabric Filter Plant unit 2 on cell A, B, C and D.

- The bag replacement of Unit 2 is either conducted On Load or off load.
- During On load Bag replacement, the bags are replaced one cell at a time.
- Each cell has a different possession date. Possession date will be as per Task Order,
- The Contractor completes the cell bag replacement within five days Thus all the internal work on the cell is completed within 5 days'
- The Contractor completes each cell's lime pre-coating within one day of completing the bag replacement.
- During the on-load re-bag, only the cell where the bags are being replaced is isolated the rest of the plant is treated as live Care is taken to avoid disturbing any equipment and devices on the running plant as this might cause damage to the plant or people.
- Special care is taken to avoid TEMPERING with the damper actuators of adjacent cell, as these might operate abruptly and CAUSE A UNIT TRIP.
- During off-Load Bag replacement, all the bags are replaced (all four cells).
- All the cells have the same possession date,
- The Contractor completes all four cell's bag replacement within nineteen days. Thus all the internal work is completed within 20 days,
- The Contractor completes all four cell's lime pre-coating within one day of completing the bag replacement,
- The Contractor to return all unused items or items that can be refurbished to stores through the Project Manager.

# 2.1 REMOVAL OF OLD SUPPORT CAGES AND FILTER BAGS

- The Employer provides isolation and issues a permit to commence work at 08h00 on the morning of the possession date,
- The Contractor removes the pulse pipes from their installed position in the plant, labels it and stores it in a safe place for re-fitting it in original position after the bag replacement,
- The Contractor doesn't damage the mounting pins if any damage occurs, the Contractor notifies it as a defect and repairs the damage.
- The Contractor seals the pulse pipes open ends to limit dirt ingress during storage period. The
  procedure to be used for the sealing is submitted within two weeks of the Contract Date to the
  Project Manager for acceptance. The Contractor removes all the used blanking plates and delivers
  it to the FFP stores,
- The Contractor removes the old bags from their installed position in the plant, by lifting the first four meters of the cage and the bag out,
- The bag is 8 meters long and the cage is in two 4-meters sections,
- The Contractor cuts off the bag form the top cage, splits the top cage form the bottom cage, pulls out the bottom half and carefully removes the bag from the bottom cage,
- The bags are immediately packed in an industrial strength waste bag.

REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FABRIC FILTER PLANT (FFP)

- The Contractor removes and stores the bag steel cups and top support rings in a safe place for later re-use during installation of new cages and bags,
- The Contractor does not cause damage to the steel rings on which the bags cages are supported. If any damage occurs the contractor notifies it as a defect and repairs the damage,
- The contractor retain all cages, steel cups and support rings for further use. Any damage is reported immediately to the Supervisor,
- Steel cups are retained at ground floor level There is no retention space inside or outside of the cell area,
- The Contractor disposes the old bags through the clean-air side via the bag disposal chute into the dirty bins on ground level Each cell has four chutes,
- After all bags have been removed the cell is vacuum cleaned properly with industrial vacuum cleaning equipment,
- The Contractor in conjunction with the Supervisor inspects the cleaned cell for holes or indication of dust leaks before re-bagging commences and report to the System Engineer.

# 2.2 DISPOSAL OF OLD BAGS AND OTHER REFUSE

- All removed bags are packed in industrial strength waste bags upon removal from the cages,
- The Contractor provides disposal bins for the storage and transport of the used fabric filter bags and other material to be disposed of.
- The contractor makes use of an experienced waste disposal company such as Roshcon, Waste Tech or other similar accepted by the project manager for the correct storage, transportation and disposal of the old bags.
- The Contractor makes use of the disposal chutes installed at the rear of the FFP between the top
  walkway and the ground level to convey the bags from the top of the FFP to the disposal bins at the
  bottom,
- No objects are dropped from the top of the FFP except via these disposal chutes.
- The contractor employs methods (e.g. covering the waste bins or employing water sprays) to keep
  dust pollution into the nearby environment to the minimum during the bag replacement process.
   The Contractor submits their method statement within two weeks for the Contract issue Date to the
  Project Manager for acceptance,
- The bags are disposed in a manner that causes that no bags are lost during the transportation
  process form Site to the class 1 disposable site nor cause any pollution of the environment in the
  process,
- The Contractor regularly removes the filled disposal containers form Site to the class 1 disposal site No containers will be over filled or left uncovered,
- The Contractor provides the Project Manager with a disposal certificated as proof of compliance that the bags were disposed of at a class 1 disposable site, This is submitted within two weeks of completion,
- The Contractor removes all used cages and disposes them to the correct bins as provided by the Employer,
- The fabric filter area must be barricaded off with solid barricading during the re-bag process,
- The Contractor notifies the Supervisor to inspect the cell before re-bagging commence,
- The Contractor collects the bags from the Duvha Fabric Filter Plant bag store as indicated by the Project Manager.

#### 2.3 THE INSTALLATION OF NEW FILTER BAGS

When the removal of the old bags ad cages has been completed and the cell is cleaned, the installation of new bags and cages follows in a sequential detailed below,

- The Contractors inspects the new bags prior the installation, Any damage to the bags is reported to the Supervisor. The Contractor does not install a damaged bag,
- Install the new bag and insure that the cuff is installed properly in to the bag plate as indicated on the drawings 0 57/48834, 0.57/42302 and 0 57/42303.
- Install the cage steel support ring over the bag cuff,
- The steel cups are the installed followed by the bottom cage, then the top cage Ensure that the two
  cages are joined properly and locked in position,

REPLACEMENT OF FABRIC FILTER BAGS FOR UNIT 1 FABRIC FILTER PLANT (FFP)

- The Contractor fits the new bags on to the cages and installs it together the used steel cups and top support rings into its position in the casing. The contractor cleans the pulse pipes before refitting it to their original position in the plant,
- Once one row of bags is installed the pulse pipes is placed into position, ensuring the mounting pins are secure properly and the correct pins is fitted on the correct row,
- The Contractor cleans all debris form the cell and associated dust hoppers,
- The Contractor notifies the Supervisor to inspect the cell and the newly installed fitted bags before signing off the permit to work inside the cell,
- Once the gas permit has been cleared, the Contractor pre-coats the new filter bags with hydrated lime in terms of the ESKOM pre-coating procedure under the supervision of the Supervisor,
- The contractor supplies, deliver and unloads the lime to lime coating plant,
- The Contractor coats each completed cell with 16 tons of hydrated lime as per the ESKOM pre
  coating procedure, after the re-bag is completed. Note that only lime supplied in a tanker is
  acceptable.
- During the On Load Bag replacement each cell is coated with lime as soon as the rebag for that cell has been completed and before the following cell is taken out of service,
- During the Off Loading Bag Replacement the cells are coated with lime after all four cell's bags have been replaced, This is done as per the Eskom pre-coating procedure, which is different form the on-load procedure,
  - The Contractor provides the lime and labour for this pre-coating activity,
- On completion of each cell's bag replacement the ground floor area is washed and left in a clean state.

# CONTRACTOR COMPETENCY REQUIREMENTS (TECHNICAL GATE KEEPERS);

- 1.1 Must provide work methodology to execute the scope of work.
- 1.2 Must have at least two Responsible Persons (RP) authorised to work on the FFP with valid Duvha PSR authorisation
- 1.3 Must have at least two supervisors with filter bag replacement and removal experience or similar work experience (provide proof of work done)
- 1.4 Must have at least two health and safety officers with SAMTRAC qualifications or similar certificate.
- 1.5 Must be familiar with the following OSH Act 85 of 1993 requirements;
- · Health and Safety Representatives Act 17(4),(5),(6),
- · Environmental Regulations for Workplaces- Regulations 6(1) to (3),
- · General Safety Regulations Regulations 2 and 5(1).
- 1.6 Must be familiar with disposal of old filter bags according to Eskom's Waste management Procedure ENVP005 (Latest revision must be used)
- 1.7 The contractor to provide proper Personal Protective Equipment relevant to the project and accordance to Duvha safety standard and Regulations
- 1.8 The contractor submits his method statement on the cleaning within two weeks of the Contract Date to the Project Manager for acceptance.

### 3 GUIDELINE FOR DEVELOPING A WORK METHODOLOGY

A typical work methodology must be developed according to the scope to be executed; it must be comprehensive and must be detailed in a sequential manner to give indication of the start and end of the activities. The following is a comprehensive guideline on how develop a work methodology;

- Identify equipment to be utilised, i.e, Personal Protective Equipment (disposable overalls, goggles, gloves etc), work tools and safety measures to ensure safe execution of activities.
- A structure of key personnel should be developed and agreed on by all parties,
- Mention steps to be followed to remove and neatly pack the pulse pipes,
- Mention steps to be followed to remove the old cages and bags from the bagplate,
- Mention steps to be followed to pack the old cages before disposal thereof,
- Mention steps to be followed to dispose old bags,
- Mention steps to be followed to ensure that the cell is cleaned ready to be rebagged with new bags,
- Mention the handling and installation of new filter bags and cages,

# **PART 4: SITE INFORMATION**

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

# **PART 4: SITE INFORMATION**

# C4.1: Information about the site at time of tender which may affect the work in this contract

# Safety Risk Management

- The Contractor complies with the requirements of the Duvha Power Station Safety, Health & Environmental Specifications SAS 0012 rev 8.
- 2) The documents are completed by the Contractor and submitted to the Employer before taking possession of the works.
- 3) These documents are valid for the duration of the works.
- 4) The Contractor and all his personnel attend a Health and Safety Induction Course prior to starting with the works.
- 5) The induction course is presented by the Safety Risk Department at Duvha Power Station
- 6) The Contractor makes arrangements with Project manager who will arrange with Safety Risk Management, for a slot and the date scheduled for the course.
- 7) The Contractor submits all the documents as indicated in the Safety, Health & Environmental Specifications relevant to the work to Safety Risk Management before the induction course.
- 8) The Contractor completes all appointments required and ensures that the appointee and appointees fully understand their responsibilities and are competent and trained to execute their duties.
- 9) The appointees/appointee ensures that all duties are carried out and records are kept by the Contractor for review/audit by the Employer or Inspector of Machinery.
- 10) Duvha Safety Risk Management has the right and authority to visit and inspect the Contractor's work place or Site establishment.
- 11) The Contractor supplies and ensures that his employees wear the necessary PPE according the risk assessments performed on the specific tasks to be carried out.
- 12) The Contractor ensures that everyone entering Duvha Power Station under his supervision are medically, physically and psychologically fit to enter Duvha Power Station.
- 13) The medical examination, at the Contractors cost, is carried out by a Registered Professional Occupational Health Practitioner and the examination shall include the following tests:
  - a. Eye Test, Blood Pressure,
  - b. Heart Function,
  - c. Hearing Test and
  - d. Lung Function.
- 14) A thorough examination is done and previous physical injuries, as well as occupational diseases/complications are covered.
- 15) If at any point in time during the execution of the works, the Contractor has a radiation-related

incident/exposure, the onus is on the Contractor to immediately notify the Employer, the Medical

- Station, the Risk Manager and the Safety Risk Management Department.
- 16) The onus thereafter is for the Contractor to immediately arrange, at his/her cost, for blood samples to be taken by a Registered Laboratory and for this sample to be sent to the Excellerator Laboratory in Cape Town for full radiation exposure tests. This test results are then to be discussed with the Duvha Occupational Health Practitioners, who will then advise the Power Station Management on the risk, if any, of the incident/exposure.
- 17) The Contractor takes full responsibility and accountability for all other people/staff/personnel/labour that he/she employs or utilises, whether in full-time/part-time/contract basis, in executing the works or other work whilst on the Employers premises.
- 18) The Contractor ensures that Safety Harnesses are used for all work carried out in elevated positions, as defined in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations.
- 19) All safety equipment or Machinery used complies with the SANS Codes of Quality and Practice or any Code as stipulated in the Occupational Health and Safety Act, No 85 of 1993, and any amendments thereto.
- 20) The Contractor at all times consider himself as "Employer" as defined in the Occupational Health and Safety Act, No 85 of 1993 and do not consider himself as under supervision or management of the Employer with regard to Health and Safety Requirements but only from a Commercial Contractual Condition of Contract. Under no circumstances does the Contractor consider himself a sub-ordinate or being given supervision.
- 21) The Contractor provides and maintains his own facilities as required in the Occupational Health and Safety Act, No 85 of 1993 or any other Code of Practice or standard or the Construction Regulations, if not agreed contractually or arranged by the Employer.
- 22) The Contractor has Safety Systems in place at his premises for the total contract period and these shall include the following:
- a. Safety Management Structure and Compliance to these.
- b. Statutory Appointments.
- c. Records and documentation of all Risk and Hazard Analyses.
- d. Planned Job Observations Records and Documents.
- e. Employment history and records of all personnel, part-time or full-time or contract labour.
- f. Medical History of all personnel, part-time or full-time or contract labour
- g. Training and Competency Records with regard to Safety, Health and Environment.
- h. Training and Competency Records with regard to the skills he uses to carry out the works or any other works in the Employers premises.
- i. Compensation Commissioner records and proof of registration.
- j. Records and documentation with regard to any sub-contractor or labour-only contracts he places or uses to carry out the works or any other works in Employers premises.
- k. Personal Protective Equipment and Safety Equipment Inspection, training and competency records and documentation.
- I. Employment contracts for all sub-contractor or labour-only contracts.

- m. Compliance to a Safety System, such as NOSA or any other system that is similar in nature.
- n. Records of all incidents or accidents, and vehicle accidents, incurred during execution of this works or any other works in the Employers premises.
- o. Records of all man-hours, including sub-contractors or labour-only contracts, the Contractor spends on the Employers premises.
- p. Written Safe Work Procedures for all hazardous tasks the Contractor executes on the Employers premises.
- q. A Fall Protection Plan for all elevated work the Contractor does on the Employers premises.
- r. Environmental Plan and awareness training.
- s. Induction training records of his staff by himself/herself.
- t. Minimum wage compliance for the different skills and to which Bargaining Council compliance is made to and proof of membership, if any.
- u. Risk Assessment of this type of works
- v. Proof of authorisation/accreditation from Department of Labour and or other Statutory Body for this type of works, if applicable
- w. Emergency Evacuation and Rescue Plan for the hazardous tasks related to the works.

### Specific Risks

- 23) The following risks are identified by the Employer and Contractor specifically addresses these risks to ensure that the works is carried out safely:
- a. Working at heights
- b. High temperatures
- c. Low temperatures
- d. High pressures
- e. High voltage
- f. Windy conditions
- g. Dusty conditions
- h. High noise area
- i. Work is being carried out overhead
- j. Work is being carried out below
- k. Possibility of drowning exists
- I. Work in confined spaces
- m. Possibility of noxious gasses
- n. Possibility of steam release
- o. Possibility of fires or explosions
- p. Chemicals
- q. Biological Hazards
- 24) Gaskets used are fit for the type of liquid, solid or gas being transported and do not contain any asbestos fibres.

25) The ash dust is harmful if inhaled and the Contractor provides proper dust masks to all his personnel working in dusty environments.

# **Plant Safety Regulations**

- 26) The Employer, on request from the Contractor, isolates required plant from all sources of danger as described in the Plant Safety Regulations.
- 27) The Project Manager, on request, makes available a copy of the latest revision of the Plant Safety Regulations available to the Contractor.
- 29) The Contractor conforms to all rules and regulations applicable to plant safety and completes the Workman's Register prior to working on the plant.
- 30) The Contractor declares any grinding and welding to be carried out on the workers register.
- 31) At every permit change the Contractor withdraws himself/herself/his staff for that period of permit suspension/revocation and thereafter only proceeds with the works after signing onto the new permit.
- 32) The Contractor ensures that he/she/all sub-contractors/personnel/staff/his visitors are medically, physically and psychologically fit to enter the Duvha Power Station, and specifically any confined space.
- 33) The Contractor is prohibited from entering Radiation Areas.
- 34) The onus is on the Contractor to ensure that the correct confined space requirements and tests have been done/met by the Employer prior to entry into any confined space or hazardous plant areas.
- 35) The Contractor ensures that all personnel are competent to carry out the works.
- 36) Proof of competency for technical and safety aspects must be available as and when required on site.

# Limited Access Register (LAR)

- 37) The LAR is for the person in charge of the plant to maintain control over activities taking place on his plant that are not covered by the Plant Safety Regulation and Operating Regulations for High Voltage Systems.
- 38) Activities that are allowed to be carried out under the LAR must not require a permit and must satisfy the following criteria:
- 39) They must not involve danger to the person carrying out the activity;
- 40) No plant isolations must be required;
- 41) The activity must be performed by a skilled person and there must be no risk of a production loss;
- 42) The duration of the activity must be less than 24 hours
- 43) The Supervisor accompanies the Contractor during the first instances of working under a LAR on a specific plant area.
- 44) It is very important that the person who plans to do an activity on a plant under the LAR informs the person in charge of the plant (ASS on the panel or PPO at WTP) of what will be done.
- 45) This means verbally telling the person in charge of the plant what will be done and not just signing the LAR book. The LAR book is also signed.

- 46) It is also important that as soon as the activity is completed the person, who was doing the activity, notify (verbally) the person in charge of the plant that conditions are back to normal and that the LAR has been signed off. Just signing the LAR book is not sufficient.
- 47) For more information please refer to Plant Safety Regulation C11.

### Fire precautions

- 48) Any tampering with the Employer's fire equipment is strictly forbidden.
- 49) All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards must be kept free of obstruction, and not be used for work or storage at any time. Fire fighting equipment remains accessible at all times.
- 50) In case of a fire, report the location and extent of the fire to the Electrical Operating Desk at extension 2222.
- 51) Take the necessary action to safe guard the area to prevent injury and spreading of the fire.
- 52) Reporting of accidents
- 53) The Employer follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents.
- 54) The Contractor is expected to fully co-operate to achieve this objective.
- 55) The Project Manager is informed immediately of any Category B or C incidents. Category A incidents and any damage to property or equipment must be reported to the Supervisor within 24 hours.
- 56) Radiation incidents must be reported immediately.
- 57) In reporting Category C and D incidents, the Contractor submits the following documents, or any additional as required by the Employers investigation team.
  - a. Proof of Contract of Employment.
  - b. Proof of WCL notification to Department of Labour.
  - c. Proof of Medical Doctors Note/Certificate detailing nature of injury and period of rest.
  - d. Death Certificate, if Category C fatality.
  - e. Risk and Hazard Analysis, if not in place prior to injury.
  - f. Written Safe Working Procedure, if not in place prior to injury.

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

# Occupational Health and Safety Act 1993 - SECTION 37

58) The Contractor and Employer agrees to the arrangements and procedures between them to ensure compliance by the main Contractor (as the mandatory) with the provisions of Section 37.2 of the

Occupational Health and Safety Act, No 85 of 1993.

- 59) The Contractor complies with:
  - a. the Occupational Health and Safety Act, 1993, and all Regulations made hereunder;

- b. all Eskom Safety and Operating Procedures.
- 60) The Contractor acknowledges that he is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who received sufficient safety training to ensure that they can comply therewith.
- 61) 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.
- 62) The Contractor appoints a person who liaises with the Eskom Safety Officer responsible for the premises relevant to the Contract.
- 63) The person so appointed on request:
  - a. supplies the Eskom Safety Officer with copies of minutes of all Health and Safety Committee meetings, whenever he is required to do so;
  - b. supplies the Eskom Safety Officer with copies of all appointments in respect of employees employed on this Contract, in terms of the Act and Regulations and notifies the Eskom Safety Officer of any changes thereto.
- 64) Eskom may, at any stage during the currency of this agreement, be entitled to:
  - a. Do safety audits at the Contractor's premises, its work-places and its employees;
  - b. Refuse any employee, Subcontractor or agent of the Contractor access to its premises if such person has been found to commit any unsafe act or any unsafe working practice or is found to be not authorised or qualified in terms of the Act;
  - c. issue the Contractor with a work stop order or a compliance order should Eskom become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 1993 and all Regulations made there under as well as all Eskom Safety and Operating Procedures.
- 65) No extension of time will be allowed, as a result of any action taken by Eskom in terms of the foregoing Clause and the Contractor has no claim against Eskom as a result thereof.

### **Hazardous Substances**

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

### Radiation protection

- 67) The Contractor conforms to Duvha procedure HMS0002 when performing any industrial radiography. Thermal insulation containing asbestos.
- 68) The Contractor does not disturb any thermal insulating material on the plant until it has been positively identified as not containing asbestos. Approval is obtained from the Supervisor before any thermal insulation is disturbed.
- 69) All stripping of asbestos material is undertaken strictly in accordance with the Employer's Standard, SAP 0022, available from Safety Risk Management.

- 70) The Project Manager advises the Contractor whether areas that are to be stripped of lagging have been identified as containing asbestos.
- 71) The Contractor is obliged to ascertain from the Project Manager in advance whether areas required to be stripped, are non-asbestos. Any contractor, other than the contractor appointed to remove asbestos strips no lagging material containing asbestos fibres.
- 72) The Contractor appointed to remove asbestos, does not begin removal without first obtaining the necessary permission from the Deputy Director of Labour and the Project Manager.

# Barricading and screens

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

# Housekeeping

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

# **Vehicle Safety**

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

### 1. Quality assurance requirements

1) All work will be carried out under the CONSTANT Supervision of an Experienced Competent Supervisor.