



NEC3 Engineering & Construction Contract

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

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

**for Design, supply, delivery and construction of dust
shield structures between the Compressor West
building and PJFFP (Unit 1) as well as the
Compressor East building and PJFFP (Unit 4)**

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CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:	No of pages
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C1.2b Contract Data provided by the <i>Contractor</i>	[•]

C1.1 Form of Offer & Acceptance

Offer

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

Design, supply, delivery and construction of dust shield structures between the Compressor West building and PJFFP (Unit 1) as well as the Compressor East building and PJFFP (Unit 4)

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

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

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

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number (if applicable)

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

Acceptance

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

The terms of the contract, are contained in:

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

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**

Eskom Holdings SOC Limited
Kusile Power Station
R545 Kendal/Balmoral Rd
Haartebeesfontein Farm
Witbank

Name &
signature of
witness

Date

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

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

Note:

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

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

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

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

For the tenderer:

For the Employer

Signature _____

Name _____

Capacity _____

On behalf of _____
(Insert name and address of organisation)

Eskom Holdings SOC Limited
Kusile Power Station
R545 Kendal/Balmoral Rd
Haartebeesfontein Farm
Witbank

Name & signature of witness _____

Date _____

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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

1. Please read the relevant clauses in the conditions of contract before you enter data. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
1. Some ECC3 options are always selected by Eskom Holdings SOC Ltd. The remaining ECC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row. Where the following symbol is used "[•]" - data is required to be inserted relevant to the specific option selected.]

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	•	A: Priced contract with activity schedule
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	X2: Changes in the law
		X5 & X7: Sectional Completion and delay damages used together
		X15: Limitation of <i>Contractor's</i> liability for design to reasonable skill and care
		X16: Retention
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	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 <i>Project Manager</i> is: (Name)	Zanele Kubheka
	Address	Kusile Power Station, R545 Balmoral/Kendal Road, Haartebeesfontein Farm, Witbank

	e-mail	kubhekza@eskom.co.za																	
10.1	The <i>Supervisor</i> is: (Name)	Lelethu Thipa																	
	Address	Kusile Power Station, R545 Balmoral/Kendal Road, Haartebeesfontein Farm, Witbank																	
	e-mail	mhlalalm@eskom.co.za																	
11.2(13)	The <i>works</i> are	Design, Supply and Installation of Compressor East and West Dust Ingress prevention Barrier																	
11.2(14)	The following matters will be included in the Risk Register	1. Dust Inhalation 2. Slip, Trip & Fall 3. Falling Objects 4. Electric Shock 5. Permit to Work 6. Working at heights 7. Quality 8. Time																	
11.2(15)	The <i>boundaries of the site</i> are	East and West Compressors																	
11.2(16)	The Site Information is in	Part 4: Site Information																	
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.																	
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa																	
13.1	The <i>language of this contract</i> is	English																	
13.3	The <i>period for reply</i> is	Five (5) working days																	
2	The Contractor's main responsibilities																		
3	Time																		
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	After commissioning of each section, all permits to site has been cleared and proper handover is done to the end user																	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<table><tr><th colspan="2"><i>Condition to be met</i></th><th><i>key date</i></th></tr><tr><td>1</td><td>Submit Programme for approval</td><td>2 Weeks after Kick off meeting</td></tr><tr><td>2</td><td>Submit QCP's</td><td>2 Weeks after Kick off meeting</td></tr><tr><td>3</td><td>Submit safety file for approval</td><td>2 Weeks after Kick off meeting</td></tr><tr><td>4</td><td>All tools to be used to be readily available and inspected</td><td>As soon as safety file is approved</td></tr></table>			<i>Condition to be met</i>		<i>key date</i>	1	Submit Programme for approval	2 Weeks after Kick off meeting	2	Submit QCP's	2 Weeks after Kick off meeting	3	Submit safety file for approval	2 Weeks after Kick off meeting	4	All tools to be used to be readily available and inspected	As soon as safety file is approved
<i>Condition to be met</i>		<i>key date</i>																	
1	Submit Programme for approval	2 Weeks after Kick off meeting																	
2	Submit QCP's	2 Weeks after Kick off meeting																	
3	Submit safety file for approval	2 Weeks after Kick off meeting																	
4	All tools to be used to be readily available and inspected	As soon as safety file is approved																	
30.1	The <i>access dates</i> are:	Part of the Site		Date															
		1	East Compressor	2 Days after Site															

			Establishment and Permit to work approval
	2	West Compressor	2 Days after Site Establishment and Permit to work approval
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within		2 Weeks after kick off meeting
31.2	The <i>starting date</i> is		Contract signature date
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than		5 days
35.1	The <i>Employer</i> is not willing to take over the works before the Completion Date.		The takeover will be after the completion of each unit
4	Testing and Defects		
42.2	The <i>defects date</i> is		52 weeks after Completion of the whole of the works.
43.2	The <i>defect correction period</i> is		10 days
5	Payment		
50.1	The <i>assessment interval</i> is		between the 25 day of each successive month.
51.1	The <i>currency of this contract</i> is the		South African Rand.
51.2	The period within which payments are made is		4 weeks.
51.4	The <i>interest rate</i> is		the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands
6	Compensation events		Refer to NEC3 ECC terms and conditions of core clause 6
60.1(13)	The place where weather is to be recorded is:		Kusile Power Station
	The <i>weather measurements</i> to be recorded for each calendar month are,		the cumulative rainfall (mm)
			the number of days with rainfall more than 10 mm
			the number of days with minimum air temperature less than 0 degrees Celsius
			the number of days with snow lying at 09:00 hours South African Time
			and these measurements:

The *weather measurements* are supplied by **South African Weather Bureau**

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

and which are available from: **the South African Weather Bureau and included in Annexure A to this Contract Data provided by the Employer**

60.1(13)	Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	N/A
7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	Late design approval, late equipment supply, and commencement of the works. In terms of insurance.
9	Termination	"Refer to NEC3 ECC terms and conditions of core clause 9
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.
20.4	The <i>Contractor</i> prepares forecasts of Defined Cost for the <i>works</i> at intervals no longer than	Four (4) Weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	arbitration.
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of

		Arbitrators (Southern Africa) or its successor body.		
	The place where arbitration is to be held is	South Africa		
	The person or organisation who will choose an arbitrator			
	- if the Parties cannot agree a choice or	the Chairman for the time being or his		
	- if the arbitration procedure does not state who selects an arbitrator, is	nominee of the Association of Arbitrators (Southern Africa) or its successor body.		
12	Data for secondary Option clauses			
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X5 & X7	Sectional Completion and delay damages used together			
X7.1 X5.1	Delay damages for late Completion of the sections of the works are:	section	Description	Amount per day
		1	East Compressor	0.5% of the section cost
		2	West Compressor	0.5% of the section cost
	Remainder of the works			
	The total delay damages payable by the Contractor does not exceed:	5% of the contract price		
X15	Limitation of the Contractor's liability for his design to reasonable skill & care	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X16	Retention			
X16.1	The retention free amount is	R0.		
	The retention percentage is	5%		
X18	Limitation of liability			
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to:	R0.0 (zero Rand)		
X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's property is limited to:	the amount of the deductibles relevant to the event		
X18.3	The Contractor's liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of the total of the Prices at the Contract Date and the amounts excluded and unrecoverable from the Employer's assets policy for correcting the Defect (other than the		

		resulting physical damage which is not excluded) plus the applicable deductible as at contract date.
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <p>Defects due to his design which arise before the Defects Certificate is issued, Defects due to manufacture and fabrication outside the Site, loss of or damage to property (other than the works, Plant and Materials), death of or injury to a person and infringement of an intellectual property right.</p>
X18.5	The <i>end of liability date</i> is	<p>(i) 2 years after the <i>defects date</i> for latent Defects and</p> <p>(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.</p> <p>A latent Defect is a Defect which would not have been discovered on reasonable inspection by the <i>Employer</i> or the <i>Supervisor</i> before the <i>defects date</i>, without requiring any inspection not ordinarily carried out by the <i>Employer</i> or the <i>Supervisor</i> during that period. If the <i>Employer</i> or the <i>Supervisor</i> do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the <i>Employer</i> or the <i>Supervisor</i> to have discovered the Defect.</p>
Z	The <i>Additional conditions of contract</i> are	Z1 to Z15 always apply.
Z1	Cession delegation and assignment	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.	
Z2	Joint ventures	
Z2.1	If the <i>Contractor</i> constitutes a joint venture, consortium or other unincorporated grouping of	

two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.

- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

- Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Project Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z6 Health, safety and the environment: Add to core clause 27.4

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor* accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Site;
warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z7 Provision of a Tax Invoice and interest. Add to core clause 51

- Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Works Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

- Z8.1 Delete from the last sentence in core clause 61.3, "unless the *Project Manager* should have notified the event to the *Contractor* but did not".

Z9 Employer's limitation of liability

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is

limited to R0.00 (zero Rand)

Z9.2 The *Contractor's* entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

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

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

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

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

Z12 Ethics

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

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

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

Z12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

- Z12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

- 84.1** When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.
- 84.2** The *Contractor* provides the insurances stated in the Insurance Table A.
- 84.3** The insurances provide cover for events which are at the *Contractor's* risk from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of inc
Loss of or damage to the works, Plant and Materials	Contractor shall be liable to any damaged caused Employer's property, equipment, material, and pla Contractor shall be accountable for 25% of the da caused per incident. The replacement cost where covered by the Employer's insurance The Employer's policy deductible, as at Contract C where covered by the Employer's insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not	Loss of or damage to property Employer's property The replacement cost where not covered Employer's insurance The Employer's policy deductible, as at Contra where covered by the Employer's insurance Other property The replacement cost
Liability for death of or bodily injury to employees of the Contractor arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z 13.2

Replace core clause 87 with the following:

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

INSURANCE TABLE B

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

Z14 Nuclear Liability

- Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.</i>
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z15.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

Z15.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z15.3 The *Employer* manages asbestos and ACM according to the Standard.

Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z15.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance

Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

- Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

[Instructions to the contract compiler: (delete this notes before issue to tenderers with an enquiry)

Whenever a cell is shaded in the left hand column it denotes this data is optional. If not required select and delete the whole row, otherwise insert the required Data.]

Notes to a tendering contractor:

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

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

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

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

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .		
11.2(3)	The <i>completion date</i> for the whole of the works is			
11.2(14)	The following matters will be included in the Risk Register			
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:			
31.1	The programme identified in the Contract Data is			
A	Priced contract with activity schedule			
11.2(20)	The <i>activity schedule</i> is in	(in figures) (in words), excluding VAT		
11.2(30)	The tendered total of the Prices is			
	Data for Schedules of Cost Components	<i>Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).</i>		
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert another schedule if foreign resources may also be used	Category of employee		Hourly rate

62 in SSCC	The percentage for design overheads is	%
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:	

PART 2: PRICING DATA
ECC3 Option A

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

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

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

Identified and defined terms	11	
	11.2	(20) The Activity Schedule is the <i>activity schedule</i> unless later changed in accordance with this contract.

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

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

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

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

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

Function of the Activity Schedule

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

Link to the programme

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

Preparing the *activity schedule*

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

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in his *activity schedule* and be priced accordingly.

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

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;

- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

An activity schedule could have the following format:

C2.2 the *activity schedule*

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 1				
	PRELIMINARIES AND GENERAL				
	Site Establishment (2No of 6 x 3.5m office containers)	Once Off	1		
	Site De-Establishment (2No of 6 x 3.5m office containers)	Once Off	1		
	Medicals - Entry	Once Off	16		
	Medicals - Exit	Once Off	16		
	PPE	Once Off	16		
	Safety File	Once Off	1		
	Travelling / Transport - LDV Van	Per Month	12		
	Travelling / Transport - Kombi	Per Month	6		
	Security Clearance/Screening Certification (Obtained from SAPS, MIE or Accredited Institution)	Once Off	16		
	SITE CREW				
	Civil/Structural Design Engineer - (ECSA Registered - Min Experience: 5 years)	Hours	1956		
	Project Manager	Hours	1956		
	Site Agent/Construction Manager	Hours	1956		
	Health and Safety Officer	Hours	1956		
	Quality Inspector (QA)/Quality Control (QC)	Hours	1956		
	Draughtsman	Hours	1956		
	General Worker - 10No	Hours	9780		
				Carried to Final Summary	
	BUILDERS WORK				
	BILL NO 1: PRELIMINARIES & GENERAL				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 2				
	ROOF COVERING & CLADDING				
	0.58mm Supa-Clad IBR890 C2S Sunny Horizon Global-Duro Z275, galvanised and finished on both sides, fixed to steel purlins:				
	Sides sheeting	m ²	956,28		
	Accessories:				
	Side flashings	m	26,00		
	Drip flashing	m	73,56		
	Screws	No	1000,00		
	Carried to Final Summary				
	BUILDERS WORK				
	BILL NO 2: ROOF COVERING				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 3				
	STRUCTURAL STEEL				
	GALVANISED STEEL COLUMNS AND BEAMS, ETC				
	Welded parallel flange channel in single lengths with flat base, cap bearer and connection plates, bolted to concrete				
	180 x 70 x 6mm PCF - Sides	t	0,55		
	350 x 300 x 30mm Baseplate welded to members using 6mm continuous fillet weld	No	2,00		
	PURLINS, GIRTHS, BRACING, etc				
	Purlins and grits, bolted to steel:				
	150 x 75 x 20 x 2.5mm Lipped channel section	t	3,27		
	90 x 90 x 6mm Angle sections	t	5,04		
	Angle cleats	t	0,17		
	BOLTS, FASTENERS, etc				
	High tensile bolts - M20 8.8 Grade	t	0,44		
	SUNDRIES:				
	SCAFFOLDING (Provisional)				
	Scaffolding drawing is required and must be submitted	Sum	1,00		
	NOTES & ASSUMPTIONS:				
	Due to space confinement a crane or cherry picker might not be used. Scaffolding would be a viable option. The height of the screen is 13m				
	Shop drawings (Provisional)	Sum	1,00		
	Carried to Final Summary				
	BUILDERS WORK				
	BILL NO 3: STRUCTURAL STEEL				

					AMOUNT
	SUMMARY				
BILL 1	PRELIMINARIES AND GENERAL				
BILL 2	ROOF COVERING & CLADDING				
BILL 3	STRUCTURAL STEEL				
				GRAND TOTAL	

Document reference

No of
pages

	This cover page	1
C3.1	<i>Employer's Works Information</i>	
C3.2	<i>Contractor's Works Information</i>	
	Total number of pages	

C3.1: EMPLOYER'S WORKS INFORMATION

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2.12 Records of Defined Cost, payments & assessments of compensation events to be kept by the <i>Contractor</i>	Error! Bookmark not defined.
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3 Engineering and the <i>Contractor's</i> design	Error! Bookmark not defined.
3.1 <i>Employer's</i> design	Error! Bookmark not defined.
3.2 Parts of the <i>works</i> which the <i>Contractor</i> is to design	Error! Bookmark not defined.
3.3 Procedure for submission and acceptance of <i>Contractor's</i> design ...	Error! Bookmark not defined.
3.4 Other requirements of the <i>Contractor's</i> design	Error! Bookmark not defined.
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3.6 Design of Equipment	Error! Bookmark not defined.
3.7 Equipment required to be included in the <i>works</i>	Error! Bookmark not defined.
3.8 As-built drawings, operating manuals and maintenance schedules .	Error! Bookmark not defined.
4 Procurement	Error! Bookmark not defined.
4.1 People	Error! Bookmark not defined.
4.1.1 Minimum requirements of people employed on the Site	Error! Bookmark not defined.
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4.2.1	Preferred subcontractors	Error! Bookmark not defined.
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4.3	Plant and Materials	Error! Bookmark not defined.
4.3.1	Quality	Error! Bookmark not defined.
4.3.2	Plant & Materials provided “free issue” by the <i>Employer</i>	Error! Bookmark not defined.
4.3.3	<i>Contractor’s</i> procurement of Plant and Materials	Error! Bookmark not defined.
4.3.4	Spares and consumables	Error! Bookmark not defined.
4.4	Tests and inspections before delivery	Error! Bookmark not defined.
4.5	Marking Plant and Materials outside the Working Areas	Error! Bookmark not defined.
4.6	<i>Contractor’s</i> Equipment (including temporary works)	Error! Bookmark not defined.
4.7	Cataloguing requirements	Error! Bookmark not defined.
5	Construction	Error! Bookmark not defined.
5.1	Temporary works, Site services & construction constraints	Error! Bookmark not defined.
5.1.1	<i>Employer’s</i> Site entry and security control, permits, and Site regulations	Error! Bookmark not defined.
5.1.2	Restrictions to access on Site, roads, walkways and barricades	Error! Bookmark not defined.
5.1.3	People restrictions on Site; hours of work, conduct and records	Error! Bookmark not defined.
5.1.4	Health and safety facilities on Site	Error! Bookmark not defined.
5.1.5	Environmental controls, fauna & flora, dealing with objects of historical interest	Error! Bookmark not defined.
5.1.6	Title to materials from demolition and excavation	Error! Bookmark not defined.
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6	Plant and Materials standards and workmanship	Error! Bookmark not defined.
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6.2	Building works	Error! Bookmark not defined.
6.3	Civil engineering and structural works	Error! Bookmark not defined.
6.4	Electrical & mechanical engineering works	Error! Bookmark not defined.
6.5	Process control and IT works	Error! Bookmark not defined.
6.6	Other [as required]	Error! Bookmark not defined.
7	List of drawings	Error! Bookmark not defined.
7.1	Drawings issued by the <i>Employer</i>	Error! Bookmark not defined.
C3.2	Contractor's Works Information	Error! Bookmark not defined.

Description of the works

1.1 Executive overview

The Compressor West and East buildings are located adjacent to the dust handling plants at Unit 1 and Unit 4 respectively (see Figure 1 and 2). Ventilation fans located on the ground floor level of the buildings, extract ambient air which contains ash particulate from intermittent ash leaks from the DHP and PJFFP systems. Dust that accumulates in the buildings ultimately leads to equipment damage and failures. This also has the potential to lead to failure of the compressed air system, resulting in a Multiple Unit Trip (MUT).

The Employer has developed a concept design for the required dust shield structure [3]. Preferred sites have also been identified for the structures.

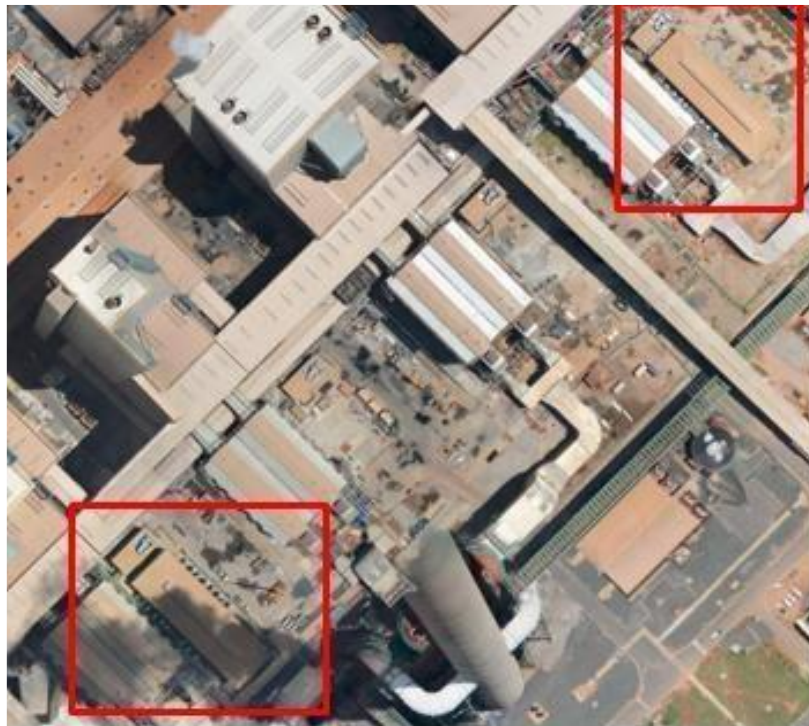


Figure 1: Compressor West & PJFFP – Unit 1 (Left) and Compressor East & PJFFP - Unit 4 (Right)

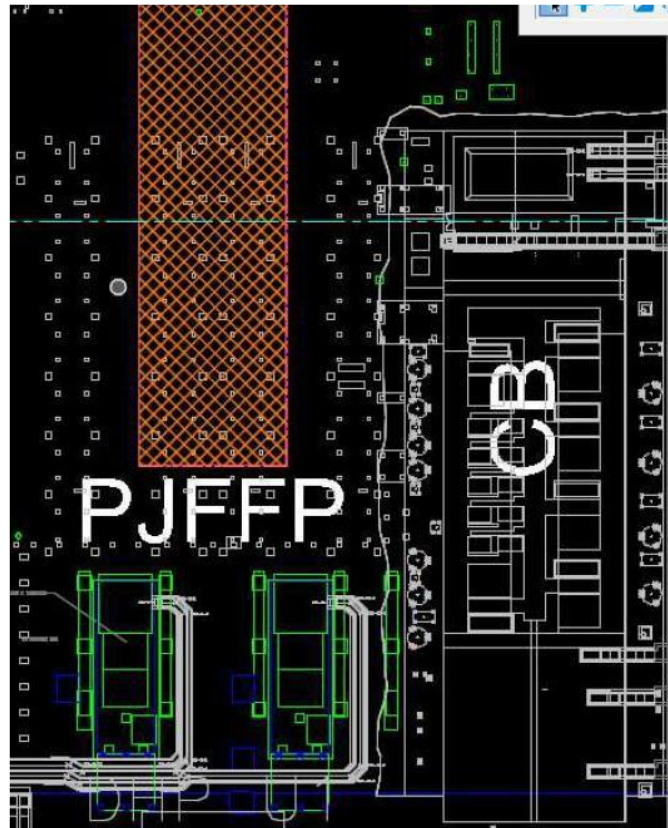


Figure 2: Site Layout – Compressor Buildings & PJFFP's

1.2 Employer's Design

Detailed design drawings of the site area are listed in APPENDIX A and shall be issued to the *Contractor* for the completion of the *Works*.

1.3 Interface and Integration with Others

The *Contractor* is responsible for all interfaces that form part of the *Works* and shall cater for these in their design. The *Contractor* to note that the chosen sites for the dust shield structures have existing services i.e. piping, racking and lighting. The *Contractor* shall avoid any clashes with existing services as well as cater for this in their design.

1.4 Scope of Work

The *Works* include the design, supply, delivery and construction of dust shield structures between the Compressor West building and PJFFP (Unit 1) as well as the Compressor East building and PJFFP (Unit 4) - see **Figure 3** for the conceptual layout of the dust shield structures. The *Contractor* shall develop an implementable detailed design solution for the dust shield structures. The dust shield structures will partially encase the PJFFPs (see **Figure 4** for the proposed boundary limits of the shield structure). The structures shall flush with the existing floors. All cut-outs and openings on the structures shall be sealed with a suitable sealant. The dust shield structures shall be supported as far as possible on the existing plinths and structural support system of the PJFFP's. The shield structures shall also extend the full height of the mentioned plants - See **Table 1** for the dust shield structure details. The dust shield design solution shall cater for maintenance access to maintainable equipment in the PJFFP area. It is proposed that the shield structure be clad with an IBR sheeting or similar. The sheeting shall be suitable for the design solution application as well as the environmental conditions of the sites.

Height	~ 13 000mm (Approximate)
Width/Side Dimensions	~ 12 000mm (Approximate)
Length	~ 48 000mm (Approximate)

Table 1: Dust Shield Structure Details

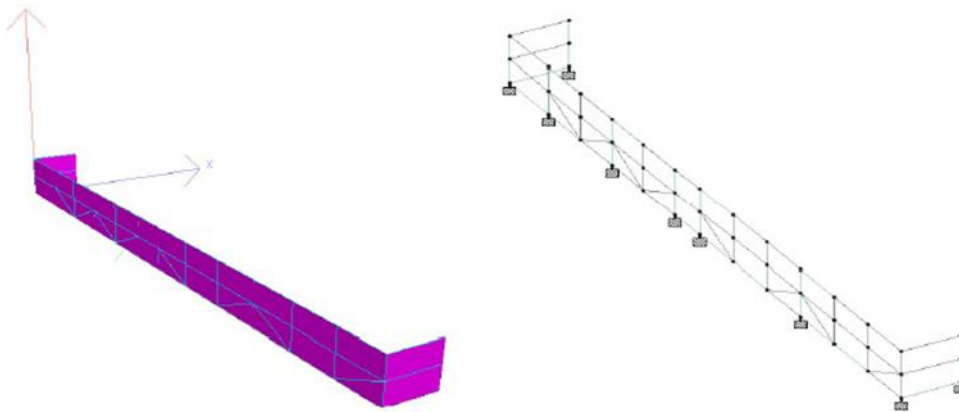


Figure 3: Conceptual Layout of Dust Shield Structures

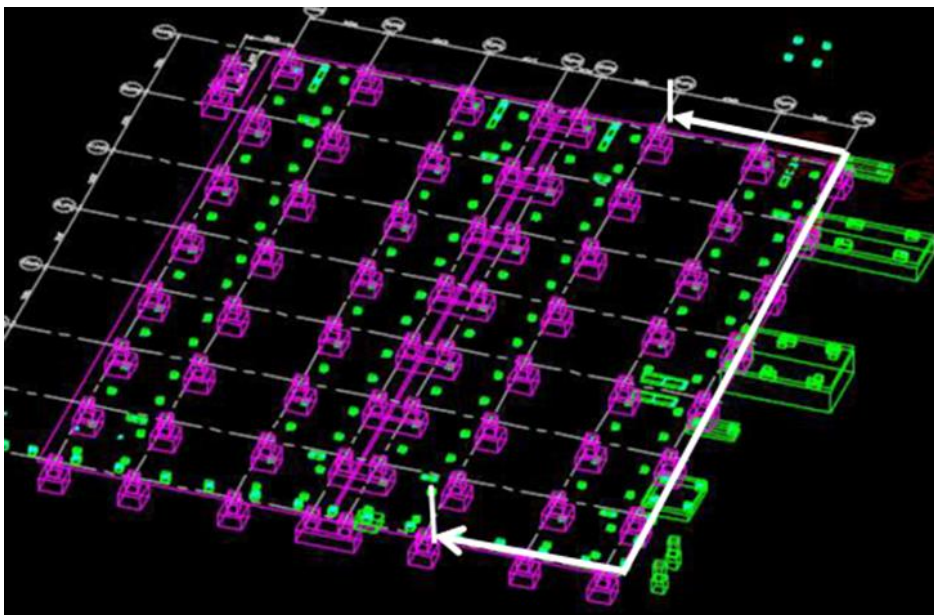


Figure 4: PJFFP's Plinths with the Proposed Dust Shield Boundary Limits

1.5 Design and Construct Scope

1.5.1 Design Scope

The following is required from the *Contractor*:

- a. Perform a detailed design for the dust shield structures at PJFFP Unit 1 and PJFFP Unit 4. The *Contractor* shall take full professional accountability for the design *Works* and provide design assurance for the *Works*.
- b. Submit a detailed design report for the *Works* for review and acceptance by the *Employer*. The design report shall include but not be limited to the following:
- Design criteria/parameters, specifications and standards used, loadings, assumptions, calculations results/records including detailed design calculations, design models and any other record of information associated with the completed *Works*. All calculation files and analysis/design models are to be submitted in native electronic format. The design report shall be submitted in electronic and PDF formats.
- c. Prepare and submit detailed engineering design drawings. All designs shall be submitted to the *Employer* for review and acceptance prior to commencement of construction. Detail design drawings shall be submitted in native (DGN/DWG) and Adobe PDF formats.
- d. The *Contractor* shall develop and submit fabrication/shop drawings as well as erection drawings for all structural components of the *Works* that will be issued for construction purposes
- e. Develop and submit as-built data and drawings of the completed *Works* upon handover. As-built drawings shall be submitted in PDF and DGN/DWG formats
- f. The *Contractor* shall perform technical assurance at appropriate stages/phases of construction to ensure that the *Works* are executed per the approved designs, specifications and standards. Related tasks and activities shall include but not be limited to the following:
- Review of the construction quality control plan, method statements, fabrication drawings, amongst others
 - Review of the WPS, welder qualification papers, NDT testing reports, where applicable
 - Responding to technical queries and clarifications
 - Review and acceptance of temporary work designs
 - Review and acceptance of data books, as-built drawings that are developed/prepared by the *Contractor*
- g. The *Contractor's* design engineer who is registered with the Engineering Council of South Africa, shall provide design certification in accordance with SANS 10400-A, to declare the *Works* fit for purpose. The *Contractor* will be required to provide certification for the following:
- Certification upon completion of the design
 - Certification upon completion of the construction *Works*, to declare/confirm that the *Works* were carried out in accordance with approved designs and all applicable and relevant standards and specifications
- h. Submit a Level 4 design schedule for the design scope. The schedule shall demonstrate and highlight all of the related engineering design activities and durations. The schedule shall be submitted as part of the *Contractor's* tender submission. The schedule shall be re- submitted upon contract award.
- i. Perform all of the necessary assessments for the *Works* pertaining to the chosen site for the dust shield structures
- j. Submit a price/cost proposal for the design *Works*.

1.5.2 Construction Scope

The following is required from the *Contractor*:

- a. Supply, construct and handover *Works* as per detailed designs provided by the *Contractor*
- b. Perform a constructability analysis for the design to be implemented and submit a report to the *Employer* for review and acceptance. The *Contractor* shall refer to the *Employer's* Constructability Assessment Guideline Standard [13] to perform the constructability analysis. The report shall clearly illustrate how the

construction will be completed within the allowable timeframes and highlight any risks of meeting this requirement.

c. Supply labour, materials, equipment, plant tools, scaffolding etc. required to complete the *Works* as specified herein.

d. The *Contractor* is responsible for cutting of existing steel or concrete, drilling, provision of any additional plinths, cast in bolts, chemical anchoring, or other necessary elements, to enable sound interfacing with the ready structure or surface, to complete the *Works*.

e. The *Contractor* is responsible for the design and construction of all temporary works and is mandated in terms of the Construction Regulations 2014: Duties of Designer, 6(2) a – d, to fulfil the duties described therein for the temporary work designs done by the Contractor eg. Scaffold.

f. Supply consumer power requirements, potable water requirements and any other termination interface requirements that are required to complete the *Works*, to the *Employer*.

g. Submit a Level 4 Construction/Execution Schedule for the detailed works. The schedule shall highlight all project related activities and durations. The *Contractor* shall notify the *Employer* timeously should there be any changes in the submitted programme. The *Contractor* shall also acquaint themselves with the work involved and verify all quantities, materials etc. necessary to undertake the *Works*, for proper programming and co- ordination.

h. Submit a comprehensive/detailed construction method statement for the related work activities as well as a Quality Control Plan (QCP)/ Inspection, Test Plan (ITP) for approval by the *Employer*. The *Contractor* in his work method statement shall include the following as a minimum:

- The scope of works to be undertaken;
- Comprehensive description of work activities/construction methodology and sequence of construction activities;
- Health, safety and quality control measures for the activities;
- All plant, equipment and machinery required to complete the work activities;
- Temporary works to be used during the execution of the works;
- Technical Data Sheets/Material Certificates for all materials that will be used for the works. These shall be submitted for review and acceptance by the *Employer* and *Contractor*, prior to the start of works;
- Risk assessment associated with the *Works*
- Plan/s for confining, collecting and disposing of waste materials as a result of any removal operations, where applicable.

i. The *Contractor* shall be responsible for the complete surveying and setting out of the works. The *Contractor* is responsible for the correct positioning of all parts of the *Works*, and rectifies any errors in the positions, levels, dimensions or alignment of the *Works*.

j. The *Contractor* shall confirm the available space in the proposed area for the construction of the proposed shield structures taking note of all existing services, pipes, structures and any obstructions to the *Works*.

k. The *Contractor* shall arrange for all laboratory and field tests that are required for process control. Test results and records that are carried out on materials and workmanship shall be submitted to the *Employer* for approval and acceptance.

l. Construction supervision, monitoring and quality control shall be provided by the *Contractor* for the *Works*

m. The *Contractor* shall submit as-built drawings for all the components of the finished *Works* to the *Employer* for acceptance.

n. The *Contractor* shall compile and submit a data package for the completed *Works* – this must contain all of the documentation that was used to complete the *Works*. The documentation shall include but not limited to the following:

- Design drawings used to execute the *Works*
- Approved construction method statement, QCP/ITPs
- Material certificates/data sheets. This shall include but not be limited to the following:

i. Steel grade certificates

ii. Bolt grade certificates

- Welding documents (if applicable). This shall include but not be limited to the following:

i. Welding Procedure Specification (WPS)

ii. Procedure Qualification Record (PQR), welder qualification(s)

iii. Weld test certificates

iv. Non-destructive weld test results

v. Welding consumables and all other documents required by relevant welding standards

- Laboratory and field test results. This shall include but not be limited to the following:

i. Concrete 7 day and 28 day cube test results

ii. Slump test results

iii. Concrete mix designs including all required test results e.g. aggregate test results

o. The *Contractor* shall submit a price/cost proposal for the Construction *Works*

1.6 Temporary works

The *Contractor* is responsible for the design, supply and construction of all temporary works that are required to complete the *Works*. The *Contractor* is mandated in terms of Construction Regulations 2014: Duties of Designer, 6(2) a – d, to fulfil the duties described therein for the temporary work designs eg. Scaffold. The *Contractor* shall dismantle/demolish temporary *Works* when such works are no longer required. The *Contractor* shall also supervise the implementation of all temporary *Works*.

1.7 Documentation Requirements

1.7.1 Documentation Submissions

All documents and records must be submitted and managed according to the Project/Plant Specific Technical Document and Records Management Procedure [15] as well as the Generation (Gx) Projects Documentation Deliverable Requirements Specification [16]. The *Employer* shall ensure that the *Contractor* is provided with the latest revisions of the mentioned documents.

The *Contractor* to allow a minimum of 21 days for mailing, processing, and review of drawings and data by the *Employer*. The *Contractor* is responsible for the compilation and the supply of all the documentation required during the various project stages and to provide the documentation programmed to link with the milestone dates.

The *Employer* uses Smartplant Owner Operator (SPO) for documents and records management. The *Contractor* shall submit electronic copies of the documents using a fully secure web based solution providing carefully controlled access to appropriate project information for authorized personnel. All electronic design data and documents shall be in such a form which enables importing of such data, documents and drawings, including 3-dimensional drawings, seamlessly into the Intergraph SPF (Smart Plant Foundation) system.

1.7.2 Documentation Reviews

The *Contractor* shall conduct design reviews in accordance to the *Employers* Design Review Procedure [7] and participate in all design reviews as specified by the *Employer*. The *Employer* shall also review and consolidate review comments submitted by the *Contractor*. The *Contractor* shall also make the necessary revisions or rectify noted issues highlighted on the documentation by the *Employer*. The *Contractor* must

include the documentation reviews as part of the Design and Construction schedules and allocate appropriate timelines/durations for these activities.

1.7.3 Drawings

The creation, issuing and control of all Engineering Drawings will be in accordance to the latest revision of the Engineering Drawing Standard [11] - to be supplied as part of the enquiry documents. Drawings issued to the Employer will be a minimum of one hardcopy and an electronic copy. The *Contractor* is required to submit drawings electronically in both native CADD format and PDF format. Drawings issued to the *Employer* may not be "Right Protected" or encrypted [11].

Drawings shall have sufficient detail to indicate the type, size, arrangement, component weight, breakdown for shipment, the external connections, anchorages and supports required; the dimensions needed for installation and correlation with other materials and equipment. The *Contractor* shall fully complete and certify drawings for compliance with the Contract requirements. Drawings shall have title block entries that clearly indicate that the drawing is certified. Each submitted drawing is project unique and shall be clearly marked with the name of the project, unit designation, Employer's contract title, Employer's contract file number, project equipment or structure nomenclature, component identification numbers, and the Employer's name. The *Contractor* shall include the *Employer's* drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and his *Subcontractors*. It does not apply to drawings developed by manufacturers for equipment and material such as valves, instruments, etc. Drawing numbers shall be assigned by the *Employer* as drawings are developed.

The language of all documentation shall be in the English language. The units of measure are metric.

The *Contractor* shall retain the project design calculations and information for the entire life cycle of the plant and provide these to the *Employer* on prior written notice at any time notwithstanding the expiry or termination of the contract.

1.7.4 Document Identification

The *Contractor* shall ensure that documents have the following minimum attributes on the cover page:

- Title of the document
- Document Unique Identification number (Eskom number)
- *Contractor* Document number, if applicable
- Document status
- Revision number
- Document Type
- Document security level
- Document revision table/history
- Page number on the footer
- Document Author/Authoriser/
- Document Originator *Contractor*

The following additional attributes are important for technical documents:

- Package/System name, sub-system if applicable
- Unit/s number
- *Contractor* name
- *Contractor* number
- Plant Identification Codes

Format and Layout of Documents

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

Layout and Typography

Every document should comply with the following font specifications:

- Font Colour: Black
- Main Headings Font Type: Arial, Bold, Capital Letters

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

Document Headers

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

Naming of files

The Contractor complies with the Eskom standard for naming documentation files. The standard is as follows:

- For documents that have an approval date and signature;
(YYYYMMDD_DocType_DocumentTitle_UniqueIdentifier_Revision.FileExtension)
- For documents that do not necessarily require the 'Approved Date' and 'Revision & Versioning', use the date of update;
(YYYYMMDD_DocType_DocumentTitle_UniqueIdentifier_Revision.FileExtension)
- All further requirements are according to IEC 61355 – 1:2008 (Edition) Classification and designation of documents for plants, systems and equipment – Part 1: Rules and classification tables.

1.8 Testing Requirements

The Contractor shall be responsible for the testing of the Works. The Works shall be tested in accordance with the latest standards and procedures as outlined by the South African Bureau of Standards (SABS)/South African National Standards (SANS) as well as any other applicable and relevant standards and specifications. The use of materials without the Employer's written approval constitutes a default on the part of the Contractor. The Contractor shall be liable for reinstatement of works in areas requiring this.

1.8.1 Test Procedures, Records and Equipment

The Contractor is responsible to supply copies of the following:

- i) All laboratory and field test results
- ii) All dimensional and level measurements
- iii) Calibration Certificates of all testing equipment

The *Contractor* is to ensure that all testing equipment have a valid calibration certificate. No testing equipment is to be used with an expired calibration certificate. Any *Works* that have been tested with such equipment will require retesting. Any rework required after testing will be at the expense of the *Contractor*.

1.8.2 Cost of Testing

The cost of testing undertaken by the *Contractor* in terms of his obligations under the contract including the taking of samples, reinstating where samples have been taken and all testing equipment, labour, materials, etc, must be included in the rates tendered for the various items of work supplied and will not be paid for separately.

1.9 Work Schedule

The *Contractor* shall execute the *Works* per the submitted schedule or as agreed between the *Contractor* and the *Employer*. The *Contractor* shall notify the *Employer* timeously should there be any changes in the submitted programme. The *Contractor* all also acquaint themselves with the work involved and verify all quantities, materials etc. necessary to undertake the *Works*, for proper programming and co-ordination.

1.10 Codes & Standards

Works shall be done in accordance with SANS standards and any other applicable codes of practice, specifications and regulations. Reference to standards or manuals of any society, organization, or association, whether such reference is specific or by implication, shall mean the latest standard, manual, or code in effect at the time of the Contract Award. The *Contractor* is also required to adhere to the latest editions of the listed normative references [section 2.2.1]. If there is any contradiction within the codes and standards, the contractor is to liaise with the *Employer* for clarification.

The *Contractor* is also required to adhere to the latest revisions of Eskom standards (Refer to section 2.2.1 and **Table 2** below).

Number	Title
240-56364545	Structural Design and Engineering Standard
240-86973501	Engineering Drawing Standard
240-56356396	Eskom Earthing and Lightning Protection Standard
240-107981296	Constructability Assessment Guideline Standard
240-66920003	Documentation Management Review and Handover Procedure for Gx Coal Projects
240-53113685	Design Review Procedure
240-76992014	Project / Plant Specific Technical Documents and Records Management Work Instruction
203-1239	Conceptual Architectural Design Specifications for Structures and Buildings
203-770	Kusile Power station specification for structural concrete

Table 2: Eskom Standards

1.11 Reporting and Meetings

The *Contractor* shall submit formal progress reports of work activities. The frequency of reporting shall be agreed upon between the *Contractor* and the *Employer* upon contract award. Reports shall be submitted electronically

The *Contractor's* reports shall report on the overall progress and as a minimum requirement, the following must be addressed:

- Contractor's current activity progress and planned finish dates
- Current and projected manpower
- Health, safety and quality management
- Progress of any other relevant activities
- Discuss technical or commercial issues
- Procurement progress
- Problem areas or concerns.

1.12 Handover

The *Contractor* shall be responsible for handover of all *Works* associated with the contract as per this scope of *Works*. The *Contractor* shall handover to the *Employer* the completed *Works* and make good on any defects that are identified during the handover inspection.

The handover submissions shall include but not limited to the following:

- Engineered detail designs and associated design drawings of the *Works*
- Design report inclusive of calculation records etc.
- As-built design drawings of the completed *Works*
- PEC or Certificate of Compliance for the built structures
- Results and records of test and/or assessment works
- Constructability analysis report
- Data package of the relevant drawings, test certificates, construction documentation etc. for the completed works
- As-built design drawings of the completed *Works*
- PEC or Certificate of Compliance for the built structure
- Results and records of test and/or assessment works
- Constructability analysis report
- Data package of the relevant drawings, test certificates, construction documentation etc. for the completed works

1.13. General

Works shall be performed at the highest standard and satisfaction of the *Employer*. The *Employer* shall have the authority to reject any work and materials which are not in full accordance with best practices and approved standards and codes.

1.14. Employer's objectives and purpose of the works

Design, supply and installation of Compressor East and West Dust Ingress prevention

1.15. Interpretation and terminology

Definition	Description
Contractor/Consultant	Service provider contracted to provide a specific service to Eskom, Kusile Power Station.
Client/Employer	Eskom, Eskom Kusile Power Station or representative
Engineer/Engineering Professional	A registered Professional Engineer or a registered Professional Engineering Technologist specialising in and having experience in the design of civil works or structures
Project Manager	Party responsible for managing the contract on behalf of the Employer for the execution of the works

The following abbreviations are used in this Works Information:

Abbreviation	Explanation
BoQ	Bill of Quantities
CoC	Certificate of Completion
DHP	Dust Handling Plant
ECSA	Engineering Council of South Africa
Gx	Generation
ITP	Inspection, Testing Plan
MUT	Multiple Unit Trip
OH&S	Occupational Health and Safety
PEC	Professional Engineering Certificate
PJFFP	Pulse Jet Fabric Filter Plant
PQR	Procedure Qualification Record
QCP	Quality Control Procedure
QMS	Quality Management System
SABS	South African Bureau of Standards
SANS	South African National Standards
SHE	Safety Health and Environmental
SOW	Scope of Work
WPS	Welding Procedure Specification

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:
Project Kick-off Meeting	3 days Contract Award	Kusile Power Station	Employer, Contractor and Others
SHEQ Requirements Clarification Meeting	3 days after Kick – off meeting	Kusile Power Station	Employer, Contractor and Others
Execution Progress Meeting	Daily	Kusile Power Station	Employer, Contractor and Others
Overall contract progress and feedback	Weekly on Thursdays	Kusile Power Station	Employer and Contractor
Risk register and compensation events	Daily	Kusile Power Station	Employer, Contractor and Others
Other	as and when required		Employer, Contractor and Others
Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Weekly on _____ at _____		
Overall contract progress and feedback	Monthly on _____ at _____		Employer, Contractor, Supervisor, and _____

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions. Attendees shall have the necessary delegated authority to make decisions in respect of matters discussed at such meetings. Records of these meetings shall be submitted to the Service Manager by the person convening the meeting within five days of the meeting.

2.2 Documentation control

All communication between Eskom and a tenderer shall be to or from the Eskom Representative only, in writing, and in a form that can be read, copied and recorded. For this purpose, 'in writing' means hand-written, type-written, printed or electronically made, and resulting in a permanent record. Communication shall be in the English language. Eskom takes no responsibility for non-receipt of communications from or by a tenderer. Any enquiries/comments prior to awarding the contract should be sent to the appointed buyer, enquiries after the award of contract will be dealt with by the responsible project manager on a project basis. Documents for a specific project will be using the project name for identification. All contractual communications will be in the form of properly compiled letters or forms attached to emails and not as a message in the email itself.

Health and safety risk management

Roles and Responsibilities

Appointed contractors and sub- contractors

Note 1: Most of the roles and responsibilities listed apply to both appointed contractors and any sub-contractors. Where some of the listed do not apply to both, then the specific responsibilities will be listed and titled. The contractors shall:

1. Carry out all duties as listed in section 8, 9 and 10, the various other regulations that form part of the OHS Act.
2. Carry accountability and responsibility for the safety and health of their employees and their sub-contractors within their working area, as contemplated by section 37(2) of the OHS Act;

3. Shall keep a record of all employees including the sub- contractor employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the Kusile power station Project/Contract Manager.
4. Ensure that all their appointees are made aware of their accountabilities and responsibilities in terms of their appointment and that they advise and assist these appointees in the execution of their duties.
5. Ensure that the minimum legislative, regulatory and Kusile power station SHE requirements are complied with on all work sites.
6. Compile a SHE (health and safety) file where all relevant health and safety records must be kept.
7. The Appointed Contractor must hand over a consolidated (to include any sub- contractor's files) health and safety file to the Kusile power station project/contract manager on completion of the project. This is to include all drawings, designs, lists of materials used and other applicable information about the completed project, as well as the list of sub- contractors, the agreement, and the type of work completed.
8. The appointed contractor must provide the project manager **with a certified copy of his/her Compensation Commissioner's valid letter of good standing before the commencement of work and any future renewal letters obtained during the project for record-keeping purposes.** The letter of good standing shall reflect the name of the contractor's company. The nature of business reflected on the issued Logs must be in line with the issued scope of work. Similarly, the appointed contractor must provide the Kusile power station project manager with all the valid letters of good standing from their sub- contractors.
9. Appoint competent staff to perform the project work and ensure that all employees are trained in the health and safety aspects relating to such work and that the employees understand the hazards associated with all other work being carried out on the project.
10. Ensure that all employees are conversant with all relevant work procedures and that they adhere to such procedures. Similarly (without removing the appointed contractors' responsibilities), ensure that their sub- contractors and their employees are conversant with all relevant work procedures and that they adhere to such procedures.
11. Co-ordinate the activities of all the sub- contractors in the interests of safety and health;
12. Ensure that potential contractors (whom they intend appointing) submitting tenders have made detailed provision for the cost of safety and health measures throughout the project.
13. Stop his /her employees and any sub- contractors if project work is not in accordance with the safety health and environmental plan or if such work poses a threat to the health and safety of persons or a risk of degradation to the environment.
14. Only appoint contractors to do work, if satisfied that the contractor has the necessary competencies and resources to perform the work safely.
15. Appoint full-time competent employees in writing to supervise the performance of all specified work throughout the contract period.

Note 2: No work may commence and or continue without the presence of the project manager or project supervisor during performance of the contracted work.

Note 3: In determining the number of competent supervisors, the nature and scope of work being performed, shall be taken into consideration.

Note 4: If a sufficient number of competent employee(s) have been appointed to assist the works supervisor, the works supervisor may supervise more than one site.

16. Appoint a safety officer full time as per project risk.

17. Not victimise or dismiss employees, by virtue of the employees divulging health and safety information or suspecting such information has been divulged, in the interests of health and safety requirements;
18. Follow a process of disciplinary action if any of their employees or their sub- contractor employees has transgressed any of the requirements of the health and safety specification, safety and health plans, site rules or any other requirements.
19. Ensure that all appropriate precautions are taken to protect persons (visitors, members of the public, and other contractors) present at work or in the vicinity of a construction site against all risks that may arise from such site.
20. Ensure that pre-task risk assessments are conducted and documented daily and prior to the starting of any new task, irrespective of whether it is a repetitive task or not.
21. Take prime responsibility for all aspects of environmental management associated with the project activity for which they are responsible.
22. Provide any sub- contractor who is making a bid or is sub- to perform work on Kusile power station's behalf, with the relevant sections of the documented Kusile power station's SHE Specification.
23. Principal contractors are required to approve sub- contractor's health and safety plans if they meet all the requirements.
24. Prior to having pre-employment and periodic medicals fitness examinations conducted, person/man job specifications must be compiled and handed to the occupational health practitioner.
25. Ensure that pre-employment, periodic and exit medicals are carried out on their employees. Medical assessments must be conducted by a registered Occupational Health Practitioner. During the pre-employment medical, where employees will be required to work at heights, they will also be required to undergo the required employee physical and psychological fitness examinations.

Note 5: should the appointed contractor or his/her sub- contractors entertain visitors on site, they will be held responsible for the provision and wearing PPE.

26. Where performing work with the environment, ensure that minimal damage is done and that where an Environment Management Plan is in place, then adhere to the plan.
27. Must have a substance abuse program which must be in line with the requirements of the OHS Act.
28. Ensure that no alcohol or other intoxicating substances are brought on to, or remains on the work sites.

Note 6: Kusile Power Station will not tolerate the presence of anyone who is or who appears to be under the influence of alcohol or any other intoxicating substance whilst performing work for them or on any work site.

29. Ensure that all equipment and tools used comply with OHS Act requirements with respect to condition, use, care, storage, maintenance, and the management of these;
30. Ensure that all incidents are reported and investigated timeously by competent incident investigators.
31. Be involved in all of their sub- contractor's investigations.
32. Establish health and safety committees, hold such committee meetings on all sites, and ensure that sub- contractors participate in their health and safety meetings.
33. Chair their own health and safety committee meetings and record such meetings.
34. Appoint sufficient number of health and safety representatives in terms of legislative requirements and ensure that the sub- contractors appoint health and safety representatives for their work sites.

35. When appointing contractors, advise the project manager in writing timeously and obtain his/her approval prior to them commencing work.
36. Shall keep a record of all employees including the sub- contractor's employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the Kusile Power Station Project Manager.

Site Managers

1. Must be competent and at least be in a possession of OHS Act and legal liability competencies.
2. Assist the safety officer in conducting site induction training for new staff and site visitors;
3. Communicate to all employees under their control on any hazardous and related work procedures, before any work commences and thereafter, at such times as may be determined by a risk assessment;
4. Ensure that the minimum legislative and Kusile Power Station SHE requirements are complied with on all work sites;
5. Stop any work that is not in accordance with the safety and health plan or if such work poses a threat to the safety and health of persons or a risk of degradation to the environment;
6. Ensure that risk-based personal protective equipment (PPE) has been issued and employees wear/use the PPE as instructed.
7. Inspect such PPE on a regular basis and record the inspections;
8. Ensure that all incidents are reported to the client and are investigated as stipulated in the Incident Management procure (32-95).
9. Be involved in all investigations that occur within their area of responsibility.
10. Carry out audits and or inspections on their sub- contractors on instructions of their contractor.
11. Ensure that employees under their control are conversant with all relevant work procedures and that they adhere to such procedures;
12. Ensure that daily or pre-task risk assessments are conducted and documented daily and prior to the starting of any new task, irrespective of whether it is a repetitive task. Ensure that the team are involved in the abovementioned risk assessments.
13. Hold tool box talks at the start of each day/ task to discuss health and safety issues as well as confirming the requirements of the daily risk assessments;
14. Ensure that all appropriate precautions are taken to protect persons (visitors, members of the public, and other contractors) present at work or in the vicinity of a construction site against all risks that may arise from such site.
15. Ensure that no alcohol or other intoxicating substances are brought on to, or remains on, the premises / work sites and that no employee remains on site if he/she is under the influence. Furthermore, report such instances to contract management.
16. Ensure that all equipment and tools used on site comply with OHS Act requirements with respect to condition, use, care, storage, maintenance, and the management of these.
17. Not victimise their employees by virtue of their employee's divulging health and safety information or suspecting such information has been divulged, in the interests of health and safety requirements (reference – section 26 of the OHS Act).
18. Where any work is performed which involves the environment, ensure that minimal damage is done to the environment and that where an Environment Management Plan is in place, then the plan adhere to the plan.
19. Stop any employee under his/her control from performing work which is not in accordance with the appointed contractor's and or sub- contractors' health and safety plan which poses a threat to the health and safety of persons.

Contractor site supervisor or Contract Supervisor

Must:

1. Be competent to perform the required supervisory tasks; have attended OSH Act and legal liability, safety for supervisors and HIRA competency training with a minimum of 3 years supervision experience.
2. Ensure their employees and all sub- contractors comply with the required statutory and Kusile Power Station requirements;
3. Inspect all work done by the employees and all sub- Contractors to ensure adherence to Kusile Power Station's standards and specifications

4. Conduct follow-up inspections to ensure findings are closed out and preventative action is in place.
5. Ensuring a Safe working environment is established and maintained by the contractor for the elimination of unsafe acts by all people whilst on the project site.
6. Discuss all SHE related problems with the relevant contractor management timeously in the first instance and thereafter the Kusile Power Station project manager in the second instance relating to procedure requirements, non-conformance's identified, corrective actions, audits and inspection schedules.
7. Ensuring that quality records are maintained in accordance with legislative and Kusile power station requirements;
8. Continual liaison between the appointed contractor, sub- contractors and employees.
9. Ensures that employees and sub- contractors are aware of latest standards, procedures, work instructions and safety regulations issued by Kusile power station:
10. Conduct site Inspections for compliance to SHE requirements and compiles the relevant inspection reports.
11. Participate in all sub- contractor incident investigations.
12. Participate in the appointed contractor's emergency preparedness planning.
13. Ensure that their own employees and those of any sub-contractor are competent to perform the tasks assigned.
14. Issue site instructions on behalf of the appointed contractor where and when the sub- contractors deviate from safety requirements.
15. Assist the appointed contractor with the handing over process, in particular the SHE files and relevant documentation.

Contractor Health and Safety officer

1. The Safety Officer must be suitably qualified with recognised safety qualification and relevant experience.
2. Must be full time on site as per project risk.
3. Promote a SHE culture within the organisations involved in the project / contract.
4. The contractor's safety and health officer shall assist in the control of all health and safety-related matters on the sites.
5. Be involved in the developing the project SHE plan and SHE policy.
6. Be in constant liaison and cooperate with Kusile Power Station's SHE professionals responsible for providing them with a health and safety service.
7. Ensure that this SHE specification is adhered to by his/her appointed contractor and is submitted to any sub- contractors.
8. Conduct audits and inspections of all work sites for the duration of the project.
9. Be involved in the organisations incident investigations when required.
10. Participate in the organisation's statutory and non-statutory health and safety committees meetings.
11. Conduct organisational, site and visitor induction training.
12. Stop any employee or contractor from performing work which is not in accordance with the appointed contractor's and or sub- contractors' health and safety plan which poses a threat to the health and safety of persons.
13. Carry out audits and or inspections on their contractors at least monthly and any sub- contractors on instructions of their contractor;
14. Carry out frequent behaviour observations of employees under their control at least monthly and any sub- contractors on instructions of their contractor.

Specification

Scope of work

The scope of work includes the design, supply and construction of dust shield structures at the Compressor East and West buildings.

Legal Compliance

Section 37(2) (Legal) Agreement

A section 37(2) agreement must be signed between Kusile Power Station and the appointed contractor at the time of awarding the contract. The appointed contractor must ensure that a section 37(2) agreement is compiled between the appointed contractor and all their sub- contractors for the contract.

The original copy of the section 37(2) Agreement must be retained by the contractor and a copy retained by the responsible project manager.

A copy of all the agreements must form part of the respective appointed contractor's SHE file.

Note: *The agreement must be signed by both parties i.e Kusile Power Station (GX) Project Manager and the Appointed Contractor. The authorization shall not be issued to the appointed contractor without the signed 37(2) document.*

Site Access requirements

The OHS file package must be submitted to the OHS department electronically **2 weeks** before the agreed project commencement date.

Before the successful Contractor commences with any work, the Kusile Power Station Project Manager/Contract Manager shall ensure that;

- A copy of the SHE Specification document is in the possession of the principal contractor as well as the Kusile Power Station baseline risk assessment.
- The responsible person of the contracting company and the Kusile Power Station project manager/contract manager have signed the Occupational Health and Safety Act Section 37 (2) agreement.
- The appointment of the appointed Contractor have been concluded and signed by the Contractor and Appointed Project Manager.
- The SHE plan has been discussed with the responsible person of the contracting company and approved in writing by the Kusile Power Station Contract Manager.
- A task specific baseline risk assessment must be part of the SHE Plan and accompanied by a risk assessment procedure applied. A monitoring and review plan must form part of the baseline risk assessment
- Where a Sub Contractor(s) is appointed by the Appointed Contractor, the Contractor supplies the applicable Kusile Power Station SHE specifications to the Sub Contractor(s).
- Where a Sub Contractor(s) is appointed by the Appointed Contractor, the safety file for the sub-contractor must also be submitted to safety department for approval
- The OHS department shall assess and give written feedback to the contract manager.
- The safety file shall be approved by a form of a written letter, the letter shall authorise the appointed contractor to commence with site establishment.

Hazardous work by children (Child Labour)

The constitution of the Republic of South Africa, in the "Bill of Rights" is clear on the rights of children, especially when it comes to:

1. being protected from exploitative labour practices;
2. not to be required or permitted to perform work or provide services that
 - i. are inappropriate for a person of that child's age; or
 - ii. Place at risk the child's well-being, education, physical or mental health or spiritual, moral or social development; and the Basic Conditions of Employment Act, Chapter six Section 43 "Prohibition of employment of children".

Before resorting to the use of child labour, due consideration must be given to the rights of the child in terms of the constitution. Where work is being performed which is not prohibited in terms of the constitution, then such work must be conducted in terms of the OHS Act "Regulations on Hazardous Work by Children in South Africa" with emphasis on paragraph 2 Purpose and Interpretation. Kusile Power Station does not condone the use of child labour and therefore all effort must be exercised and child labour should not be used.

OHS Act

The appointed contractor and sub- contractors shall have an up to date copy of the OHS Act and regulations which will be available to all employees. The copy of the OHS Act must be placed conspicuously where all employees can easily access it.

Legislative compliance

All contractors will comply with all the legislation pertaining to this contract being:

The appointed contractor and all sub- contractors which may be appointed by the principal contractor will comply with all the legislation pertaining to the issued scope of work.

Requirements specific to the issued scope of work

- The issued scope of work falls under a high risk category as the Contractor employees will be designing, supplying and constructing dust shields structures at the Compressor East and West buildings at Kusile Power Station.

In compliance with legal and other requirements, the following requirements must be complied with fully:

- Submit a detailed SHE plan which must be suitable, practical, site specific, well- documented and a workable SHE document, compiled to satisfy the requirements of the OHS Act 85 of 1993, the Sub-'s safety specifications and other relevant legislation. The SHE plan must be aligned in terms of suitability and adequacy to the extent of the scope of work. The SHE plan should detail how health and safety would be implemented while on site looking at the scope of work as well as any legal and other requirements applicable to the project to be carried out.
- The SHE plan must show and describe the assignment of responsibilities, procedures and actions to be taken in the process of implementing and maintaining the SHE plan as well as include how deviations/non-conformances shall be managed.
- The SHE plan must be accepted by the OHS functionary before commencement of work.
- Employees must be medically fit to perform the task.
- Medical certificates of fitness that are valid must be part of the safety file package including identification documents of the employees and their competency certificates.
- The safe work procedures must indicate how the maintenance and outage repairs for boiler pressure parts and high pressure pipework will be done safely without endangering the health and safety of employees.
- The Appointed Contractor to ensure that all persons who work at height or who will be required to do rescue at height shall receive three days of FAS training and two days of rescue training in accordance with unit standard 229998 and 229995 employees that will be working at heights are trained to the correct Unit standard.
- A detailed Risk Assessment to be submitted for all working at height activities, developed by a competed fall protection planner.
- The working at height Risk assessment to be supported with a sound rescue plan.

The method statements must be approved in writing by the Eskom Kusile Generation Project Manager assigned for this project.

- The method statements must be approved in writing by the Eskom Kusile Generation Project Manager assigned for this project.
- The contractor must identify suitable PPE required for the activities including the identification of appropriate tools.
- The contractor must submit job descriptions supported by proof of competencies for all employees.
- First aid appointments must be made to meet the requirements, appointees must be trained to level 2 from SAQA approved training provider.
- Applicable legal appointments must form part of the safety file with competency certificates per appointment.
- The appointed contractor must submit a Covid-19 risk assessment, Covid-19 management plan, Covid19 policy and an appointment letter for a Covid-19 compliance officer in line with the guidelines as issued by the Department of Employment and Labour
- No vulnerable employees are allowed to come to Kusile Power Station site as identified by the Department of Employment and Labour
- The appointed contractor must supply hand gloves and hand sanitizers to the employees
- The transport used to transport employees must be disinfected as per prescribed frequency
- All risk assessments must be compiled by competent person, who has a certificate of competency for Risk Assessment from SAQA approved training provider.

Confined Spaces

- At least one door or manhole giving access to each confined space must be provided with a means to lock such door or manhole in the open position. A confined space warning sign must also be attached next to such entrance of a confined space when entry into this area will be required.
- The door or manhole concerned must be locked in the open position and a confined space warning sign attached before any person is allowed to enter such confined space. The locking, or other preventative measure, must constitute an integral part of the isolation required before the permit to work is issued.
- Before any door giving access to a confined space is closed, the person closing such door must ensure that there are no persons inside the confined space, and that all tools, equipment and debris have been removed.
- Where a confined space can be isolated and adequately ventilated, this must be done before the space is environmentally tested and certified. Thereafter a gas test certificate, environmental certificate as well as a safe entry certificate (where required) must be issued before any person is allowed to enter.
- In addition:
 - i. Adequate ventilation, gas monitoring and thermal stress monitoring (heat stress – WBGT index - cold stress) must be maintained while persons remain in the space.
 - ii. Only approved lighting and portable electrical tools shall be allowed, (Refer Electrical Machinery Regulation 10 of the Act).
 - iii. A permit to work must be issued.

Safety, Health and Environmental file package requirements

The following documentation must form part of the SHE file:

- The appointment contractor and each sub-contractor shall each have a SHE Policy that shall be duly signed by an authorised signatory concerning the protection of the health and safety of contractor's personnel and others in and about the execution of the works, including a description of his organisation and the arrangements for carrying out and reviewing such policy.
- A copy of the SHE Policy shall be provided as a tender returnable. Tenderers shall furthermore supply method statements containing sufficient detailed information to demonstrate compliance to this Schedule.
- Proof of communication of the SHE policy to employees must be attached with the submitted signed SHE policy.
- All contractors shall prominently display a copy of the policy in the workplace where the contractor's personnel normally report for service.
- The sub-contractor's SHE Plan shall demonstrate the management process and procedures that shall be adopted to ensure compliance to requirements listed in this schedule and other contract documents requirements.
- These management processes shall identify each activity, the foreseeable internal and external hazards, the specific precautions and controls that shall be necessary to ensure that the Works commence and continue safely and without risks to health or to adjacent operations
- The SHE Plan shall further demonstrate the Contractor's commitment to safety, health and environmental requirements and shall, as a minimum include the following elements:
 - Compliance to this SHE specification
 - Relevant applicable legal and other requirements as per issued scope of work.
 - Roles and responsibilities.
 - Process for hazard identification and risk assessment including monitoring and review plans, a further identification of opportunities must be part of the process. Interested and affected parties must be clearly outlined.
 - Process for change management.
 - Process for employee training, competency, communication, awareness and participation.
 - Process for incident management and investigation.
 - Process for setting objectives and programmes.
 - Process in place to review the SHE plan.

- Process for performance management and monitoring.
- Process for internal audits.
- Process for document and records management.
- Planning of conduct of work activities including planning for changes and emergency work
- Personal Protective Equipment procedure and rules.
- Emergency planning and fire risk management
- Vehicle and driver behavior safety
- Competency, training, appointments
- Communication and awareness
- Identification of Environmental Aspects, their associated impacts, mitigation measures and management thereof.
- Management commitment and visible felt leadership
- The sub- contractors SHE Plan shall be reviewed from time to time (and in any event as and when required by the client) to ensure that it fully addresses all the issues and complies with these requirements to the satisfaction of the client.

The following competencies are mandatory for this type of work:

- Risk assessor competency
- Working at height competency (FAS training in accordance with unit standard 229998 and 229995)
- Level 2 first aider competency
- Supervisor competencies i.e. Technical competencies, OSH Act and legal Liability, HIRA and safety for supervisors course.
- SHE Rep competency
- Safety officer competency
- Fall protection plan developer
- PDP and driver licences where applicable
- Emergency Coordinator and Evacuation wardens
- Incident Investigator

Costing for SHE within the Project

The SHE costing must be itemised and must take into consideration the scope of work. The appointed contractor must make sure that he/she made adequate provision for the cost of health and safety measures during tendering process. However this does not replace the normal SHE requirements pertaining to the organisation in terms of the OHS Act, General Safety Regulations 2 and Section 8 (2)(e).

COID

The appointed contractor and all his/her sub- contractors shall be registered and in good standing with compensation fund or with a licensed compensation insurer as contemplated in the compensation for occupational injuries and diseases Act , 1993 (Act No. 130 of 1993). The obligation lies with the contractors to ensure that the LoG remain valid throughout the contract period. A copy of the LoG must be filed in the contractor SHE files.

Legal and other Appointments

- For the duration of the contract, the appointed contractor and all sub- contractors shall appoint competent employees who will meet the requirements of the OHS Act.
- Where appointments are made, contractors shall ensure that the appointees have been suitably trained and or informed of their responsibilities before getting them to accept such appointment.
- The relevant statutory appointments shall be made in accordance with the requirements of the OHS Act which includes the requirement of a competent person being appointed in the relevant roles. The statutory appointments must reflect the extent of the scope of work issued.

Eskom Life-saving Rules

1. Six Life-saving rules have been developed that will apply to all Eskom Employees, agents, consultants, and **contractors**. Failure to adhere to these rules by any Eskom employee or employee of an Appointed Contractor or sub- contractor will be considered a serious transgression. These rules are being implemented to prevent serious injury or death of any employee, labour broker or contractor working in any area within Eskom.
2. If any contractual work will be performed on any Eskom premises (including delivery of any product), then the rules **shall be obeyed** by any contractor and their employees.

The Life-saving rules are:

RULE	DESCRIPTION OF RULE
Rule 1	OPEN, ISOLATE, TEST, EARTH, BOND, AND/OR INSULATE BEFORE TOUCH (That is plant, any plant operating above 1000 V)
Rule 2	HOOK UP AT HEIGHTS Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/she exposes himself/herself to a fall from or into.
Rule 3	BUCKLE UP No person may drive any vehicle on Eskom business and/or on Eskom premises: Unless the driver and all passengers are wearing seat belts.
Rule 4	BE SOBER No person is allowed to be under the influence of intoxicating liquor or drugs while on duty
Rule 5	PERMIT TO WORK Where an authorisation limitation exists, no person shall work without the required permit to work.
Rule 6	NO REVERSING WITHOUT A SPOTTER/FLAGMAN Whenever a construction vehicle has to reverse, there must be a flagman to guide the driver at all times.

Eskom will take a stance of zero tolerance on these rules.

Non-compliance to a Life Saving rule will be considered serious misconduct and will lead to serious disciplinary action, which may include dismissal.

This is to ensure that **every person** who works on or visits an Eskom **returns home safely to his or her family**.

Substance Abuse

1. Alcohol and substance abuse poses a significant threat to any business, more so in industrial incidents and the driving of vehicles. Eskom is therefore, entitled to take reasonable steps to ensure that intoxicated persons are identified and prevented from entering Eskom.
2. General Safety Regulation 2A is clear on the legal stance regarding intoxication.
3. The alcohol and drug permissible level is 0%.
4. All contractors shall comply with Eskom's procedure 32-37 ("Substance Abuse Procedure"), taking into account that this is an Eskom Life-saving Rule number 4: BE SOBER).
5. Due to COVID-19, ESKOM as suspended ad hoc alcohol test at entry points. Alcohol tests will only be performed when there is reasonable evidence that an employee is under the influence of alcohol.
6. Contractors are encouraged to compile their own manual and to carry out alcohol testing of their own employees when there is reasonable evidence that the employee is under the influence of alcohol. The legislative alcohol level is deemed to be zero.

7. Test records must be treated as "Confidential" and filed in the employees' personal file.

Contractor organisational Structure

Appointed Contractor Organogram

The appointed contractor must provide an organisational organogram related to this contract, depicting all the levels of responsibility from the CEO down to the supervisors responsible for the contract. List the relevant positions held, names of appointees and legal appointments. The organogram must be accompanied by CVs of the workforce as well as proof of competencies.

The appointed contractor must ensure that all sub- contractors comply with this requirement. The appointed contractor is responsible for keeping copies of all the organograms as well as submitting them with the SHE plan. All organograms shall be updated timeously when appointments are changed.

This diagram must be kept up to date and filed in the project SHE files.

Sub- Contractor/s Organogram

1. Sub- contractors are required to compile their company organogram for the project, listing the reporting structure from their CE down to their project supervisors. The diagram must list the names, positions held and any appointments made.
2. This diagram must be kept up to date, a copy of which must be given to the appointed contractor and a copy filed in the relevant project SHE files.
3. This diagram must be kept up to date and filed in the project SHE files.

Risk assessment (refer sec 8 & 9 of the OHS Act)

It is a legal requirement in terms of Section 8 (2)(d) of the OHS Act for an employer to carry out risk assessments, to establish which risks and hazards are attached to the health and safety of persons due to any work which is performed, any article or substance which is, handled, stored, transported.

Kusile Power Station shall prepare and provide a Baseline Risk Assessment for an intended work as per the scope of work to the contractor as part of the contract package.

The appointed contractor shall develop a risk assessment in line with Section 8 (2)(d) of the OHS Act, in alignment to Eskom 32-520 procedure. Emerging risks and hazards must be managed during the duration of the contract. This means that if there are significant changes to a process or activity, or any new process, then these should also be subjected to risk assessment.

All risks must be rated. Activity based risk assessments shall be conducted by a competent person of the Appointed Contractor.

High Risk Activities

When the appointed contractor and/or his contractors are working in an area where a high health and safety hazard exists, the appointed contractor shall:

- Ensure that permanent and adequate on-site supervision is available for the entire duration of the work that is being conducted.
- Ensure correct PPE is worn for the task
- Provide, erect and maintain all the required barricading, lighting, flags, flashing lights, or other safety control equipment to enable operations to proceed in a safe manner;
- Maintain, at all times, defined access ways, which are clear of objects or obstructions, so as to allow for emergency vehicle entry; and
- Provide any temporary protective shielding required for protecting nearby operations, at his own cost.
- The appointed contractor shall on a daily basis and for every task to be performed, conduct an issue based risk assessment with all contractors' personnel involved with the task(s). The issue based risk assessment shall form the basis of the daily pre-job briefings / tool box talks prior to the start of work. Proof of communication that contractor employees were involved in the assessment will be noted on a standard form, which shall be kept at the job site during the job execution.
- The completed risk assessment must be signed by a competent risk assessor.

Working at Height Procedure

General Requirements

Persons may only work from a fall risk position if a site-specific fall protection plan is in place and correctly implemented and consists of the following:

1. A fall protection plan developer must be appointed in writing.
2. Baseline risk assessment, which is specific and incorporates the working at height risk assessment, as well as the site-specific risk assessment, has been completed for the work to be conducted.
3. Safe working procedure/task analysis and work instructions, approved by a competent person, are in place.
4. The procedure addressing the inspection, testing and maintenance of all fall protection equipment is in place.
5. A fall rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident. Appropriate training, as determined by the risk assessment, has been provided.
6. Appropriate fall prevention equipment and fall arrest equipment have been issued and used when there is a fall exposure.
7. There are equipment inspection procedures and up-to-date inspection records.
8. Individuals are medically fit to work at height, and records of this are kept.
9. A site-specific risk assessment is performed.
10. All persons who at height or who will be required to do rescue at height shall receive three days of FAS training and two days of rescue training in accordance with unit standards 229998 and 229995
11. The contractor must ensure that all persons who work at height and those who will be required to do rescues at height shall receive training according to the relevant unit standards. As a minimum, individuals who work at height and are responsible for performing a rescue must undergo three days FAS training(Unit Standard 229998), and rescuers must furthermore undergo two days of rescue training in accordance with unit standard 229995. Rescuers must be appointed in writing for that particular site/project.

While work is in progress, adequate warning signs and/or barricades shall be used in all areas where there is a risk of persons being injured by materials or equipment falling from the work area. Barricades should be continuous and easily visible.

A drop zone shall be established with appropriate warning signs and barricading, warning personnel below of workers above and potential falling objects.

Every employer shall ensure that work at height is:

1. Properly planned.
2. Appropriately supervised; and
3. Carried out in a manner that is, as far as is reasonably practicable, safe and that its planning includes the selection of work equipment.

Fire Equipment and maintenance

1. All firefighting equipment's that have been provided shall:
 - a. Be clearly labelled

- b. Conspicuously numbered
- c. Entered in a register
- d. Inspected monthly by a competent person
- 2. Tested and serviced at recommended intervals by an accredited supplier
- 3. Results entered in the register and signed by competent person.

First Aid and Equipment

1. The requirements of the OHS Act GSR 3 must be observed.
2. First Aid appointments must be made to meet the requirements, this includes construction sites. Appointees must be trained to level 2. It is good practice for all employees to be trained to at least level 1.
3. When appointing employees for work sites, cognisance must be taken into account the type of work performed, the distance teams are working apart and the terrain to be covered if an emergency should arise.
4. A list of emergency numbers must be displayed on the notice boards and made accessible for all employees.
5. Appointed contractor must ensure that his /her employees and sub- contractor employees are familiar with the emergency numbers.
6. Contractors shall have one first aid box for the first 5 persons and thereafter one for every 50 or team of workers on site or part thereof, taking into account the type of work performed and the distance between teams.
7. More first aid boxes shall be provided in accordance with the risk assessment. Boxes must be available and accessible for the immediate treatment of injured persons at the workplace.
8. For offices, signs indicating where the first aid box or boxes are kept as well as the name and contact details of the first aider of such first aid box or boxes shall be erected.
9. The appointed contractor and sub- contractor shall ensure that alternative arrangements be made for incidents occurring after working hours.

SHE Communication Systems

- Appointed contractor/s and their sub- contractors must develop a communication procedure outlining how they intend to communicate SHE issues to their staff, the mediums they will employ and how they will measure the effectiveness of their SHE communication. Communications shall include:
 - ✓ The daily Tool box talks that shall be documented and accompanied by proof that employees were part of the talks.
 - ✓ Pre- job briefing before commencement of tasks and post- job briefing after the completion of the task.
 - ✓ Any shift handover must be documented where applicable
- Where project meetings are conducted on site, SHE shall be included as a standing agenda point and minutes of these meetings shall be available on site at all times. Minutes of meeting must be compiled and filed in the relevant SHE files. All employees shall have access to these minutes. Attendance register shall be kept for all the health and safety meetings.

SHE Committees

1. The appointed contractor shall establish statutory health and safety committee in terms of Section 19 of the OHS Act, Act. Similarly, sub- contractors shall establish their own statutory health and safety committee.
2. All sub- contractors shall be members of the appointed contractor's safety committee.

3. The Committee shall meet to discuss SHE issues concerning the current work being performed, training, upcoming work and SHE requirements, incidents and lessons learned specific SHE problems, safety performance, action plans and other relevant SHE issues.
4. SHE representatives for a workplace shall be members of the relevant workplace safety committees (Refer to Section 19 (2) (a) of the OHS Act).
5. The number of persons nominated by employer must not be more than the Health and Safety Representatives on that specific statutory health and safety committee. (Refer to Section 19(2)(c) of the OHS Act)
6. A statutory health and safety committee meeting shall be held at least 3 monthly (where medium to high risk work is involved, more frequent if required), and all sub- members of the committee shall attend the meeting.
7. Statutory health and safety committees may make recommendations to the appointed contractor and the project manager and the Inspector at DoL.
8. All health and safety committees shall discuss all projects related OHS Act Section 24 and 25 incidents and other notified serious incidents.
9. Health and safety committees shall follow up on incident investigation recommendations and shall keep record of all recommendations made by the committee.
10. Statutory health and safety committees may make recommendations for the revision of current standards, procedures and practices.
11. The sub- contractor and sub- contractors shall ensure that statutory and non-statutory health and safety committees carry out their duties.
12. The chairperson of the health and safety committees shall be selected and sub- by the contractor. The sub- chairperson must be competent to chair meetings and be able to make informed decisions.

Non-statutory health and safety committees

1. Where there are large worksites, then non-statutory sub-committee must be established within that worksite to assist with the communication of health and safety related matters between the statutory health and safety committee and the workplace.
2. The duties and responsibilities of the non- statutory health and safety committees will be the same as the statutory safety committee

SHE Training

1. The appointed contractor, when making a bid for this project shall provide a breakdown list of the SHE training requirements and the costing of such requirements. Similarly, sub- contractor must provide the same requirements when bidding with the appointed contractor.
2. The scope of training includes but is not limited to the type of work being performed. Additional to the requirements, will be that the appointed contractor and sub- contractors must have the appropriate qualifications, certificates and employees should always be under competent supervision.
3. Where legislative and Kusile power station recommended appointments are made, the relevant training shall be given to those appointees prior to the acceptance of those appointments.
4. When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the applicable refresher training.
5. Appropriate time must be set aside for training (induction and other) of all employees.
6. Records of all training and qualifications of all contractor employees must be kept on the SHE file.

Induction training

The appointed contractor shall ensure that all his / her employees, sub- contractors and their employees have undergone the Kusile Power Station Safety contractor management induction training prior to commencing work on site and shall be renewed annually.

Appropriate time must be set aside for training (induction and other) of all Contractors' personnel including the annual re-induction training.

1. Attendance registers must be completed of any induction training given, which must indicate that they have received and understood the induction training.
2. Prior to attending the induction training, all employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of fitness must be kept in the SHE file on site for the duration of the project.
3. All employees and visitors on site shall carry the proof of induction training.
4. MS teams will be used as a platform for inductions to contain the spread of COVID-19.

Site specific induction training

The appointed contractor shall ensure that all his / her employees and sub- contractor employees undergo site specific work induction with regard to the approved project SHE plan, general hazards prevalent on site, risk assessment, rules and regulations, and other related aspects. Records of site specific induction must be kept in the safety file

The induction training should also include identification of sensitive features such as wetlands/vlei areas, red data species, graves, etc.

Visitors to site induction

1. Visitors to the site shall be required to undergo and comply with the appointed contractor's site-specific safety induction prior to being allowed access to site.
2. All visitors must remain in the care and custody of a person (host) who has been properly inducted. No visitors are permitted to undertake any work onsite, of any nature.
3. Visitors who have completed site induction must be provided with a record of proof of Induction training.

Requirements for vehicles

1. The appointed contractor must have a system/ process to manage vehicle access to laydown area/site.
2. The appointed contractor must maintain their vehicles in a roadworthy condition and a vehicle license must be valid at all times.
3. Contractor vehicles can be subject to inspections by the contract/project manager
4. Vehicles which are not roadworthy will not be permitted to be used on site.
5. Precautions shall be taken to secure all loads properly. Loads projecting from vehicles shall be securely loaded and in daytime a red flag and during darkness a red light or red reflective material shall be attached to the extreme end of such projecting material.
6. All vehicles must be fitted with fire extinguisher and first aid kit.
7. Activities such as loading and offloading of material/equipment must be included in the fall protection plan and the risk assessment if there is a risk of falling.

Requirements for Drivers

1. The driver must have a valid national licence for the type of vehicle used
2. The driver must have level 1 first aid training and basic fire extinguisher training
3. It is the responsibility of the driver to ensure:

- a. Their passengers wear seat belts whilst the vehicle is in motion.
- b. Comply with all traffic road rules, safety, direction and speed signs.
- c. Ensure that vehicle loads are properly secured prior to moving off.
- d. Ensure that vehicles are not overloaded.
4. No drivers or operators may text, talk on cell phones or two way radios whilst driving, unless a hands free kit is used.
5. All drivers of such vehicles are to have valid medical fitness certificates.
6. Drivers of light vehicles must avoid stopping or parking in the vicinity of machines. At least 30 (thirty) meters must be left clear between such a vehicle and such a machine
7. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them.

Housekeeping and Order

1. All contractors shall maintain a high standard of housekeeping within their sites and vehicles for the duration of the project.
2. Prompt disposal of waste materials, scrap and rubbish is essential.
3. Materials/objects shall not be left unsecured in elevated areas –falling objects may cause serious injuries/fatalities.
4. Nails protruding through timber shall be bent over or removed so as not to cause injury.
5. All packaging material including boxes, pallets, crates, etc. to be removed from the work area immediately.
6. On completion of his / her work, the contractor is responsible for clearing his / her work area of all materials, scrap, temporary buildings and building bases to the satisfaction of the client/agent.
7. In cases where an inadequate standard of housekeeping has developed, compromising safety and cleanliness, anyone has the responsibility to bring it to the attention of the appointed contractor in the first instance and the Eskom Kusile project/site manager in the second instance.
8. The Kusile power station Project/Site Manager has the right to instruct the appointed contractor and sub- contractors to cease work until the area has been tidied up and made safe. Neither additional costs nor extension of time to the contract shall be allowed as a result of such a stoppage. Failure to comply with this requirement will result into site cleaning by another cleaning contractor company at the cost of the appointed contractor.
9. The sub- contractor shall carry out regular safety/housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards. The appointed contractor shall document the results of each inspection and shall maintain records for viewing.
10. All contractors must comply to the Kusile Power Station Barricading practice note: 240-131824200.

Workplace Signage and Colour Coding

1. When using, an explosive power tool the appropriate signage shall be erected, warning people of its use.
2. The principal contractors shall provide signage where work is conducted and where unauthorised entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.
3. The meanings of the appropriate symbolic signage must be discussed during induction training and toolbox talks.
4. Where possible, within workshops, work areas and established premises, the appropriate sign indicating the meaning of symbolic safety signs must be displayed.

Tools and Equipment

1. Contractors shall ensure that all tools and equipment are identified, safe to be used and is maintained in a good condition.
2. Contractors shall ensure that all tools and equipment are listed on an inventory list, be regularly inspected at least monthly or as required by legislation and risk assessments.
3. The equipment should be numbered or tagged so that it can be properly monitored and inspected.
4. All tools that emit noise shall be clearly marked with the emitted noise levels
5. Where applicable, tools and equipment must have the necessary approved test or calibration documentation prior to being brought onto the project and the records shall form part of the SHE plan. Maintenance calibration shall be undertaken in terms of the manufacturer's requirements.
6. All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
7. Kusile power station reserves the right to inspect tools or items of equipment brought to site by contractors for use on this project.
8. Explosive power tools must be treated with extreme caution and be operated by specially trained employees.
9. Should Kusile Power Station personnel find any item that is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, the Kusile Power Station personnel shall advise the contractor in writing and the contractor shall forthwith remove the item from site and replace it with a safe and adequate substitute.
10. Pneumatic tools must be used according to the manufacture's specifications.
11. Users of the pneumatic tools must be trained in the use of such tools.
12. Pneumatic tools must be inspected regularly, and defective tools must be removed from site.
13. Where defective tools and equipment's are identified, such tools and equipment shall be removed out of site immediately, locked away to prevent further use until such time as the tool or piece of equipment has been repaired.
14. Contractors shall ensure that the appropriate records are kept for all tools and equipment used on the project. Such tools and equipment's shall be subjected to regular inspections.

Machinery, tools and equipment Machinery is considered as any article or a combination of articles assembled, arranged or connected and which is used or intended to be used for converting any form of energy to perform work, or which is used, or intended to be used, whether incidental thereto or not, for developing, receiving, storing, containing, conforming, transmitting, transferring or controlling any form of energy.

The requirements for the use of machinery are covered in the various regulations of the Occupational Health and Safety Act.

There are strict requirements regarding the supervision and use of machinery. Since incorrectly used machinery or using unsafe machinery can cause serious harm and/or damage, it is important to ensure that all mechanical equipment is safeguarded in order to protect the health and safety of persons who may be exposed to such mechanical equipment, and also to ensure that competent persons operate the machinery.

Hand tools

1. All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the appointed supervisor on a monthly basis as well as by users prior to use.
2. Tools with sharp points in tool boxes must be protected with a cover.
3. The hand tools should be numbered or tagged, and colour coded so that it can be properly monitored and inspected.
4. All files and similar tools must be fitted with handles.

5. Tools with sharp points in tool boxes must be protected with a cover.
6. No make-shift tools allowed at Kusile Power Station.

Eskom SHE audits

Kusile Power Station shall evaluate the principal contractor SHE performance on monthly basis against the legal, Kusile Power Station requirements, SHE specification and the contractors SHE plans as the scope of works falls under a high risk category according to Kusile Power Station audit methodology risk matrix. These audits shall be attended by the contractor's site manager or the safety officer. If there are any findings / non-compliance identified as serious in these audits, an activity will be stopped for that specific appointed contractor and sub- contractor. Refer to section on "Work Stoppage" in this SHE Specification.

Note: Kusile power station reserves the right to conduct unannounced audits and inspections on contractors

Contractor audits

The appointed contractor is required to audit their sub- contractors on the implementation of their SHE Plan on a monthly basis or when the scope of work changes. A summary of the findings and the proposed corrective actions shall be submitted to Kusile Power Station OHS department within one week after completion of the audit and a copy of the audit report shall be submitted to the sub- contractor within 7 days of the audit.

3.22 Smoking

The national smoking policy must be adhered to. At Kusile Power Station smoking is permitted in designated areas only (Eskom Smoking Procedure 32-36).

3.23 Cellular Phones

The national requirements regarding the use of cellular phones must be adhered to, in particular when driving and or operating mobile equipment and or machinery.

General Requirements as per the cellular phone usage generation directive

- Cell phones shall not be used while operating any crane, hoist, powered industrial trucks, pay loaders, forklifts or other lifting device.
- Not be used while engaged in any job task that requires the use of the hands and/or the full attention of the employee, contractor, or visitor (i.e. fire watch, equipment operator, operating a valve, etc).
- Be turned off in any area containing flammable/combustible vapours, e.g. turpentine system, methanol system, fuelling stations, oil and propane storage tanks, flammable/combustible material storage areas.
- Not to be used when climbing and descending any form of staircase.
- Not to be used for text messaging whilst walking.

Medicals

Note: Kusile Power Station will only accept medical surveillances conducted by an Occupational Health Practitioner who holds a qualification in occupational health.

1. Appointed contractors must ensure that their employees and their sub- contractor employees have a medical surveillance program whereby their employees under go entry, periodic and exit medical fitness examinations.
2. In order for the appropriate medical examinations to be conducted, each employee must have a man job specification, which must indicate the description of work, list of hazards and potential occupational exposure limits, physical hazards and required physical attributes.
3. Medical fitness certificates shall be renewed annually for employees who are working on site. This shall be maintained until completion of the contract.
4. The appointed contractor must ensure that his / her employees and sub- contractor employees have undergone pre-entry medical examination before starting work on the contract.

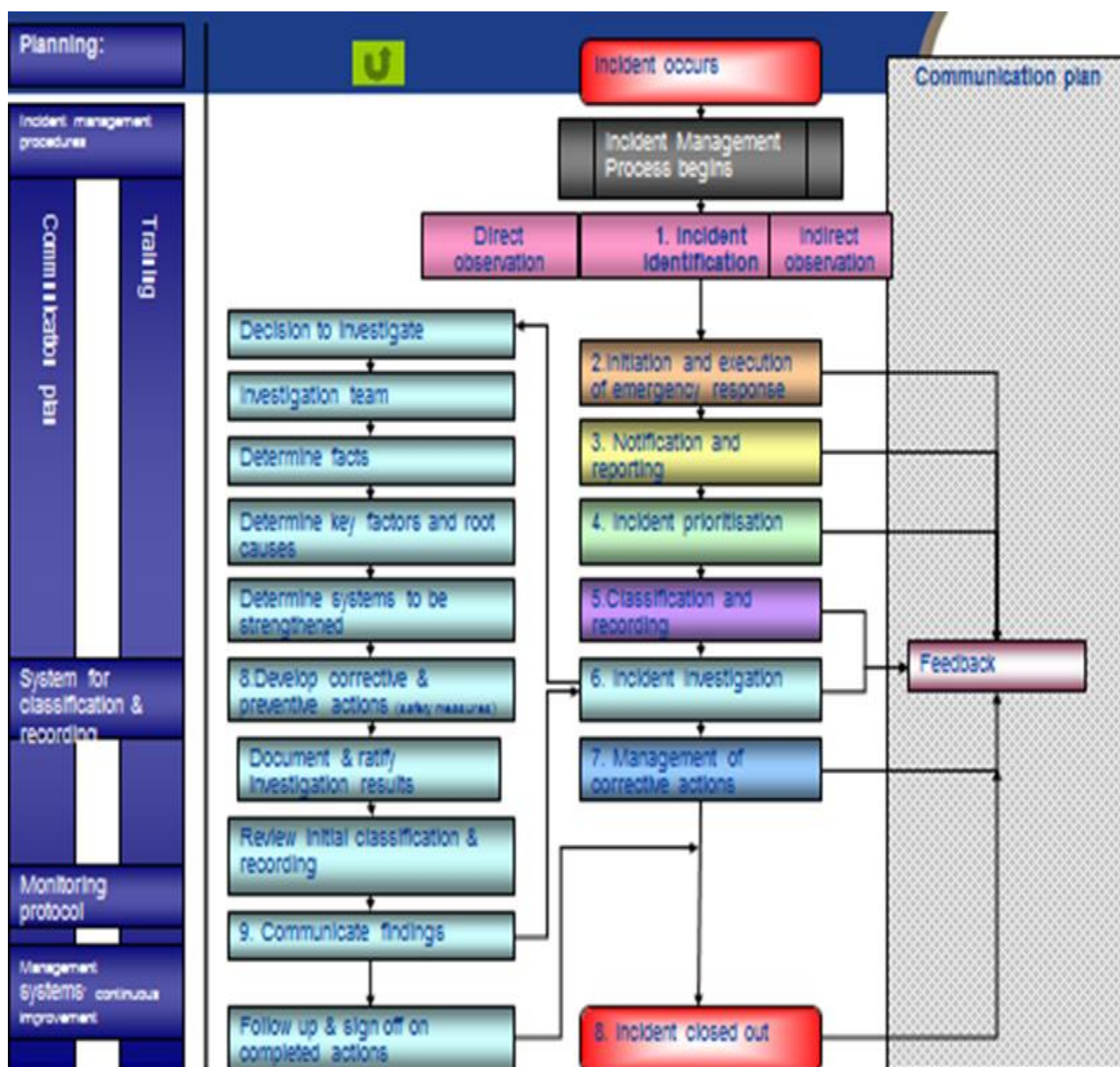
5. The sub- contractor shall provide a documented process for managing those employees who are issued with a conditional certificate of fitness.

Personal Protective Equipment Requirements

1. The appointed contractor must provide a detailed programme that includes the issuing, maintenance and replacement of PPE for all his employees and sub- contractors on site.
2. All contractors shall comply with the requirements of GSR 2 of the OHS Act.
3. The risk based PPE matrix must be compiled detailing the types of PPE that is required to be issued to employees performing the respective tasks.
4. Additional PPE shall be identified from task risk assessments for specific areas and tasks.
5. All contractors shall ensure that their visitors wear and use the correct PPE whilst on worksites.
6. Where PPE is required and visitors are not in possession of, then it is the individual contractor's responsibility to provide the PPE.
7. All PPE purchased and used by all contractor employees including visitors must comply with the relevant SANS standards.
8. Where deemed as a requirement, then high visibility vests shall be worn.

Incident Investigation

- All incidents shall be investigated in terms of OHS Act General Administrative Regulations 8 and 9, using Eskom Procedure 32-95 as a reference, and where injuries as contemplated in sections 24 and 25 have been sustained, be reported to the Department of Labour.
- Appointed contractor must develop their own incident management procedure that is in line with Eskom procedure 32-95.
- The appointed contractors shall use the standard General Administrative Regulation Annexure 1 "Recording of an Incident" form for all incident investigation reports.
- The objective of incident investigation should not only be a legal requirement, but should establish why and how the incident occurred and find out the real root cause of the incident and to decide on precautionary measures that are required to address the root cause to prevent any further recurrences of the same or similar incidents.



Emergency Management

The appointed contractor must develop their own emergency management procedure detailing the possible emergencies that could arise due to the activities that they conduct at Kusile Power Station premises and how they will evacuate their laydown areas in case of any emergency. The contractor emergency management procedure must be in line with Kusile Power Station emergency response plan.

The appointed contractor must familiarise themselves with the Kusile Power Station emergency response plan and procedure. Periodic emergency drills must be undertaken to test the effectiveness of the plan. This must be recorded and provided on request.

Fire Safety

The Contractor shall develop fire safety and evacuation procedures for any area under his control prior to the commencement of any work thereon. The procedure shall take into consideration the size of the area, types of work being done (e.g. cutting, welding, grinding, etc.), amount of combustible materials present etc. It shall take account of any hot work permit arrangements and all other applicable fire and evacuation procedures. All Contractor's Personnel entering and working on the Project Site, and other places, if any, as may be specified under the Contract as forming part of the Site, shall be trained in fire safety and emergency evacuation and any other duties they are required to perform e.g. Fire Warden.

The contractor shall be at all-times available for any meetings and interventions that are arranged by the Safety department in the sake of fire safety and emergency planning.

The contractor must develop a fire safety procedure for the construction site prior to commencing work. The procedure must take into consideration the size of the site/s, the type of work performed and amount of combustible materials. Cognisance of OHS Act CR 29 must be made.

It must be developed in accordance with the hot work permit of the Eskom Plant Safety Regulations, Eskom Fire Risk Management requirements and all other applicable Regulations. All workers entering and working in the construction site need to be trained in fire safety and any duties they are required to perform.

A suitable fire warning system for alerting site personnel of fire shall be provided, and capable of being heard in all areas of the site.

Appropriate portable extinguishers must be available on the construction site and in cases of hot work, be readily available at the location.

Storage of combustible and flammable liquid in the construction site is not permitted unless stored in approved flammable cabinets or outdoors away from the buildings.

Site Smoking Restrictions must be enforced. No open flames are permissible and where hot work is performed, the work areas must be cleared of any combustibles prior to commencement of work.

Non-Conformance and Compliance

1. Any non-compliance to any health and safety requirement in this SHE specification is subject to discipline in terms of the Eskom Procurement and Supply Management Procedure.
2. The appointed contractors are required to implement a non-conformance procedure (if not already in place) for issuing to contractors for transgressions. The procedure can include "quality" related non-conformance issues. Similarly, sub- contractors must implement a non-conformance procedure.
3. The procedure for the issuing and closing off of non-conformance reports shall be strictly adhered to.
4. Contractor project management must monitor the close out non-conformances issued, in not doing so; any recommendations made may not be implemented.
5. Where non-conformances are issued by Kusile Power Station, then one of the close-out steps of the procedure will be for the offender to be called by the responsible project manager to explain the non-conformance issued and what plan is in place to prevent a recurrence of the non-conformance.
6. Should the contractor fail to provide adequate PPE to their employees for the tasks being performed and/or to visitors; failure to enforce the wearing of such PPE will be viewed as a transgression of the legislative and Kusile power station requirements.

Work Stoppage

1. Any person may stop any activity where an unsafe act or unsafe condition that poses or may pose an imminent threat to the safety and health of an individual or create a risk of degradation of the environment.
2. This includes any unauthorised work or service performed by, or legally or contractually non-compliant acts or omissions by, any contractor contracted to work at that site.
3. Work stoppages that are initiated due to SHE concerns, non-compliance, or poor performance related to the contractor's works or services shall not warrant any financial compensation claim lodged against Kusile Power Station where the contractor has not met the requirements defined legally or contractually.
4. Where stoppages are carried out, the required non-conformance report shall be raised.
5. All work stoppages ideally should be investigated and documented by contract custodians.

Hours of Work

The requirements of the Basic Conditions of Employment Act, Chapter Two "Regulation of Working Time" must be adhered to. All contractors are required to maintain an accurate record of time worked by each employee.

Normal work

All work conducted on site shall fall within the legal requirements in accordance with the Basic Conditions of Employment Act. Contractors will notify their Kusile Power Station supervisor or project manager of any work that needs to be performed after hours according to the agreed arrangements. (The application needs to be submitted timeously). Where applicable, the notification should include proof of application, for overtime, to the Department of Labour and /or the letter of approval from the Department of Labour.

Overtime

When overtime is required to be performed, the sub- contractors shall inform the appointed contractor of such action. The appointed contractor shall inform the Kusile Power Station project manager of such function. Contractors shall be aware of the effects of human fatigue and regulate overtime accordingly. The baseline risk assessment must be reviewed to include the management of overtime work.

Omissions from Safety and Health Requirements Specification

By drawing up this SHE specification Kusile Power Station has endeavoured to address the most critical aspects relating to SHE issues in order to assist the contractor to adequately provide for the health and safety of employees on site.

Should Kusile Power Station not have addressed all SHEQ aspects pertaining to the work that is tendered for, the contractor needs to include it in the SHE plan and inform Kusile Power Station of such issues when signing the contract.

The principal contractor must submit their monthly safety statistics on the last day of the month at the OHS department.

Contract Sign-Off

On completion of the project, all sub- contractors shall close out their project documentation; SHE files and forward such to the appointed contractor. The appointed contractor shall likewise close out his/her project documentation and SHE files and forward such to the Kusile Power Station project manager.

Environmental constraints and management

Compliance Obligations

- a) The contractor and or supplier shall have a documented and implemented environmental management system e.g. environmental policy, operational procedures relating to their activities, Environmental Aspects and Impacts Register.
- b) The contractor and or supplier shall prepare an environmental management plan relating to their activities that will be carried out. The environmental management plan shall be based on, amongst others, Eskom Kusile Power Station's OEMP and any other applicable environmental legislation. The environmental management plan must include all the aspects and impacts relating to the activity and address the principle of continual improvement.
- c) The contractor and or supplier employees shall attend induction on environmental management prior to commencement of work at Kusile Power Station.
- d) The contractor and or supplier shall comply with all Eskom Kusile Power Station environmental requirements such as policies, standards and procedures.
- e) The contractor shall appoint trained and competent personnel in writing, who will have the responsibilities of implementing all environmental requirements on a specific contract.
- f) Non-conformance and All spills/emergency incidents shall be reported to Eskom Contract Manager and Environmental Officer(s) immediately on occurrence, such reports must include but not limited to the following information:
 - The date and time of the incident
 - The cause of the non-conformance/incident.

- The proposed actions to correct and prevent recurrence.
- g) Eskom Kusile Power Station shall issue non-conformances where there are deviations from Eskom Kusile Power Station Procedures and any other environmental requirements, and the Contractor or Supplier shall be responsible to provide an action plan and close out of such non-conformances timeously.
- h) Environmental Incident Investigations shall be done jointly where responsible managers and the environmental team from Eskom and the Eskom subsidiary or contractor are present.
- i) Environmental Incident investigation shall be done in accordance to Eskom Environmental Incident Management Procedure (240-133087117).
- j) The contractor or supplier shall be responsible to ensure duty of care during execution of work at Kusile Power Station and shall be liable for the costs for the costs of remedying pollution, environmental degradation and consequent adverse health effects as indicated on the NEMA principles below:
National Environmental Management Act 107 of 1998 (NEMA) principles:
 - Duty of care and remediation of environmental damage
Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorized by law or cannot reasonably be avoided or stopped, to minimize and rectify such pollution or degradation of the environment.
 - Polluter Pays Principle
The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.
- k) The contractor and or supplier shall allocate funds for the implementation of environmental requirements.
- l) All contractors shall abide to Eskom Zero Liquid Effluent Discharge through the process of reuse and recycling.
- m) All waste generated during the execution of the scope of work shall be managed in accordance with Kusile Power Station Waste Management Work Instruction (240-105776552) and in compliance with applicable environmental legislation and bylaws.
- n) All contractors should be aware of Eskom SHEQ Policy.
- o) All contractors must take into account environmental consideration when carrying out Risk Assessments.
- p) All equipment used on site must be in good working condition and no fuel and/or oil leaks on any plant will be tolerated.

Records to be kept onsite For Environmental Management

The following minimum records shall be kept on sites:

- a) Contractor site specific Environmental Management Plan and Environmental aspect and impact register. Environmental aspect must be identified, and how they should be mitigated and also be communicated to employees. Proof of communication must be available
- b) Environmental Incident registers and investigation reports;
Incident must be reported immediately or within 24 hours of occurrence, investigation must take place within 7 days and concluded with 30 days, lesson learned must be shared with employees. Record of environmental incidents must be made available.
- c) Non-conformance register;
When non-conformances are closed, they should be investigated and close-out within the agreed timeframes.
- d) Complaints register;
Where complaints are raised they should be reported to Kusile Environmental management Department, be investigated and closed out.
- e) Waste disposal register
- f) Hazardous Substances registers and SDS where applicable;
Where hazardous substances are used, a register should be maintained and all SDS should be available and communicated to employees.
- g) Records of audit reports and audit findings close-out, where applicable;
Records of audit and how findings where closed should be maintained.
- h) Records of environmental inspections conducted.
Monthly environmental inspection should be conducted and records of inspections should be maintained.
- j) Licences for Landfill sites/Waste Treatment plant for all waste streams generated and disposed by the contractor.
- k) Registration certificate for a waste service provider appointed by the contractor
- l) Safe disposal certificates or weighbridge certificates for all waste disposed.

3.34.3 Tender Submission Documentation

The following documentation shall be submitted with all tender submissions:

- a) Environmental Policy
- b) Aspect and impact register or an environmental management plan (relevant to the scope of work)
- c) Environmental Management System Certificate (if certified) if not, an environmental management system manual or procedures
- d) Waste Management Plan
- e) Proof of training of persons performing activities that could have significant impact on the environment.

Quality assurance requirements

It is important that all the contractors or service providers at Eskom meet the minimum requirements of ISO 9001 quality management system to maintain a high standard of products or services rendered to Eskom.

It is therefore important that the contractor demonstrate commitment to the development, implementation and maintenance of its Quality management system which complies with the requirements of ISO 9001 standard.

This type of work falls under category 2 of quality requirements, The Supplier shall submit a valid ISO 9001:2015 certificate or submit the following evidence:

- Quality (SHEQ) Manual
- Quality (SHEQ) Policy
- Quality (Business) Objectives
- Control of documented procedure
- Procedure for control of non-conformity and corrective action.
- Documented information for defined roles, responsibilities and authorities.
- Procedure for control of externally provided products and services/purchase order.
- Latest copy of the internal management system audit Including Nonconformity, correction and /or corrective action.
- Project quality plan
- Quality control plan (QCP), Inspection Test plan (ITP) or previous work done.
- Completed and signed Form A.

Permit to Work System (PTW)

The Eskom Permit to Work System (PTW) specify and provide requirements for the application of compulsory health and safety standards and procedures for the safeguarding of Plant and persons. This system forms an integral part of the approval process for work under the Work Coordination Process. The following Eskom Regulations shall be complied with:

- Eskom Plant Safety Regulations, GGR 0992;
- Eskom Operating Regulations for High Voltage Systems, ESKPVAEY6

The contractor shall ensure that adequately experienced personnel with the required levels of education are nominated by the contractor to attend all relevant training specific to the

Appointments required by the roles. Training shall be provided free of charge by Eskom, however, the candidates time shall be for the contractors own account.

2.3 Programming constraints

N/A

2.4 Contractor's management, supervision and key people

The Contractor must submit an organogram one month after Contract Start Date, to the Service Manager, based on the Contractor's plan and their lines of authority / communication.

2.5 Invoicing and payment

The Z clauses make reference to invoicing procedures stated here in this Service Information. Also include a list of information which is to be shown on an invoice.

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;
- The invoice is to be submitted to **invoiceseskomlocal@eskom.co.za** once confirmed with the payment certificate.

2.6 Insurance provided by the *Employer*

As stated in the Contract Data

2.7 Contract change management

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

2.8 Provision of bonds and guarantees

Not applicable

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

Not applicable

2.10 Training workshops and technology transfer

Not applicable

3 Engineering and the *Contractor's* design

Employer to keep the designs after the contract lapse after approval from the Employers side

3.1 *Employer's* design

Design will be provided by the contractor after the service is done

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

The supplier to provide the drawings and designs

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

Refer to Scope of Work **Section 1.7 Documentation Requirements**

3.4 Other requirements of the *Contractor's* design

Applicable as per the Scope of Work

3.5 Use of *Contractor's* design

- Detailed drawings for fabrication and construction. Drawings shall be submitted in DWG/DGN and PDF formats.
- All submitted drawings to be signed by an applicable Professionally Registered Engineer.
- Construction/installation Specifications for the works including measurement and payment items

3.6 Design of Equipment

As per the Scope of Work

3.7 Equipment required to be included in the works

As per the scope of work, Contractor to provide their own Equipment

3.8 As-built drawings, operating manuals and maintenance schedules

As-built drawings for the Compressor East and West

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

Minimum requirements of people employed

- All staff required to perform the activities within the works information
- All relevant personnel names and titles must be specified to the Service Manager
- All Contractors personnel specified in this contract as per 2.3 to be on site at all times
- All new staff to be appointed in writing.
- Contract Staff are not allowed to work on any other contract.
- All new staff to do induction training
- All replacements of staff will be in the same discipline (like an artisan with an artisan with proof of qualifications)
- All new staff to be approved by Service Manager before entering the site or commencing work
- All new staff must hand in all qualifications and relevant documentation to the Service Manager
- When changing personnel a new access to work form to be completed by the Contractor
- Only required specified approved amount of personnel to be allowed on site, pre-arrange with Service Manager

4.1.2 BBBEE and preferencing scheme

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

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

Transport and PPE for General Workers to be given to a local supplier to render the service.

4.2 Subcontracting

4.2.1 Preferred subcontractors

Not Applicable

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Not Applicable

4.2.3 Limitations on subcontracting

Not Applicable

4.2.4 Attendance on subcontractors

Not Applicable

4.3 Plant and Materials

4.3.1 Quality

Refer to Quality Requirements

4.3.2 Plant & Materials provided “free issue” by the *Employer*

- Water
- Ablution
- Electricity

4.3.3 *Contractor’s* procurement of Plant and Materials

Applicable as per the Scope of work

4.3.4 Spares and consumables

No spares required

4.4 Tests and inspections before delivery

Not Applicable

4.5 Marking Plant and Materials outside the Working Areas

Not applicable

4.6 *Contractor’s* Equipment (including temporary works).

Contractor to provide their own Equipment

4.7 Cataloguing requirements by the *Contractor*

Not applicable

5 Construction

5.1 Temporary works, Site services & construction constraints

5.1.1 *Employer’s* Site entry and security control, permits, and Site regulations

Employer’s site entry and security control, permits, and site regulations

- Lifesaving rules to be adhered at all times
- Access is limited and controlled by Plant Safety Regulations requirements.
- No employee will be allowed to access the plant or to work without access permit issued.
- All personnel to work on the plant must be registered on the Worker’s Register by the Responsible Person.
- All personnel must attend induction before working on site and must obtain gate permits via the Service Manager.
- Each personnel to have an Identification card at all times
- Unauthorized access to site is prohibited. The personnel are expected to be at their working site area at all times.
- No recruitment on site or at the main access gates or any Premises’ of the Employer is allowed.
- All activities to comply with the OSHACT and Regulations
- All activities on plant must be preceded by a plant risk assessment – Risk assessment as per the standard of the Employer, to be current at all times (Live Document)
- All work to be done according to the contraction regulations at all times

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

Contractor to comply to the Eskom values and rules, e.g No taking Pictures without approval, no walking and texting

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

Normal working hours is the working hours of the business.

Monday to Thursday 07:00-16:15

Friday s 07:00-12:00

- Other hours will be determine as per critical path activities during outages / breakdowns
- Overtime on as and when required basis, but must be approved by the Service Manager
- Daily time sheets must be kept up to date of normal time and overtime worked at all Times. The Employer's Contractors time sheets to be used
- Overtime to be worked on an as and when required Basis when needed.
- All overtime worked must comply with the rest period requirements of the Employer.

5.1.4 Health and safety facilities on Site

Proto-team on each shift

- Medical Station and relevant staff on Site.
- Each workshop has a first aid box available.
- Yearly induction for all personnel.
- In an emergency the contract supervisor and Service Manager must notified immediately

First aid centre

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 are 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 is entitled, however, to recover the costs from the Contractor for the use of the above Employer's facilities

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

Proper care of the natural environment is important to prevent nuisance and environmental degradation.

- All contractors shall comply with the environmental management procedures and Environmental legislation of the Employer.
- Environmental incidents shall be reported to the Employer's Environmental Department as per incident management requirements.

The Contractor is required to ensure that all goods, services or works supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the Site, the goods, services or works supplied will also conform to the Employer's environmental specifications.

Waste Management

- Waste segregation is important to facilitate recycling of waste. Ensure waste is disposed of in the correct colour bin.
- The people of the Employer periodically collects waste from the bins for disposal in the correct manner.
- No waste should be burned or buried on site.
- Where the Employer and the contractor have agreed that the contractor is responsible for the disposal of its waste, the contractor shall safely dispose of such waste and keep disposal certificates on file.

Types and colours of bins used on site:

- Yellow bin for domestic waste
- Orange bin for hazardous waste
- Maroon bin for scrap
- Green box for cartridges
- Blue box for recyclable paper

Radiation protection

The Contractor conforms to the Employer's procedure OMOP 2049 and OMOP 2051 when performing any industrial radiography.

Hazardous Substances

It is required in terms of the General Administrative Regulation (Regulation 7) of the Act that any manufacturer, importer, seller or supplier of hazardous chemical substances shall supply the receiver, free of charge with sufficient information for the user, to enable the user to introduce the necessary measures as regards the protection of the health and safety of persons. It is therefore the responsibility of the supplier (dealing directly with the Employer) to supply the information. If information is not available for whatever reason, the supplier must indicate and give reasons to the Employer.

Handling of waste produced by the Contractor

All waste introduced to and/or produced on the Employer's premises, by the Contractor, for this contract, must be handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref.:BN0621-16296-5.

The Contractor is responsible to appoint a waste coordinator to ensure that all waste produced is handled according to the applicable legislation.

The Contractor is required to ensure that all goods, services or work supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the Employer's site, the goods, services or work supplied also conforms to the Employer's environmental specifications.

Waste from the cleaning and maintenance of equipment

The Contractor is responsible to contain all waste due to cleaning and maintenance of equipment and disposes of as described below.

Stockpiling of waste

Waste is removed promptly to the designated deposit areas. No stockpiling is permitted.

Hazardous waste

Waste declared as hazardous substances in terms of the Hazardous Substances Act no 15 of 1973 is the responsibility of the Contractor to ensure safe removal from the property to a registered Class 1 site

Pest Control

- Only approved herbicides with a low environmental risk shall be used for pest control.
- Only registered pest controllers may apply herbicides on a commercial basis.
- Application of herbicides shall be in accordance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 194.

Water Conservation

- Incidents related to water pollution must be reported to the Employer's Environmental Department within 24 hours.
- Report/fix leaking taps and pipes to save water.
- Use water sparingly.
- Chemical substances shall not be disposed of in waste water or storm water drains.

Air Pollution

- Dust suppression measures must be in place to reduce airborne dust.
- Noxious and offensive odours arising from work activities shall be adequately controlled.

Ground Pollution

- Measures to prevent or control ground contamination shall be put in place e.g. drip trays, bund walls.
- Spill containment, clean-up and ground rehabilitation shall be done as per Kusile procedures

5.1.6 Title to materials from demolition and excavation

Not Applicable

5.1.7 Cooperating with and obtaining acceptance of Others

It is likely that other Contractors will be working in the same area. Others might however from time to time require limited access to the same area in order to execute maintenance activities and the Contractor is to be accommodating in such instances.

5.1.8 Publicity and progress photographs

The Contractor to Comply to Eskom rules of no Photography

5.1.9 Contractor's Equipment

Contractor to declare their equipment's and tools

- Contractor's equipment (Cell phones with Camera's, Computers, Camera's etc.) to be and signed in at security.
- All test equipment must be calibrated and tested regularly and certificates must be handed in to the Service Manager for record keeping
- All equipment and tools needs to be marked and a list off all tools with the identification number to be provided to the Service Manager when entering site.
- All lost equipment and tools to be declared to the Service Manager and full details of incident.

5.1.10 Equipment provided by the *Employer*

Contractor to provide their own Equipment

5.1.11 Site services and facilities

The Employer will provide the Contractor with the following services whilst doing work on the Affected Property

1. Water
 2. Electricity
 3. Ablution Facilities
 4. Fire Protection equipment
 5. Waste disposal Facilities
 6. Other facilities e.g., Canteens for personal accounts are available on site.
- Contractor shall provide everything else necessary for Providing the Works.

5.1.12 Facilities provided by the *Contractor*

The Contractor will provide the following to the employees contracted at the Power Station:

- Local Cell Phones
- Stationary
- Standard Personal Protective Equipment
- Suitable transport (including provision for out-of-normal hours working).
- Suitable accommodation

Appropriate Computer Hardware and Software where the equipment provided by Employer is not sufficient for the service

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

The contractor shall do inspections as per Scheduled Work Order and report al defects to the Employer's Supervisor / Employer

5.1.14 Survey control and setting out of the works

The Contractor is responsible for setting out of the works.

5.1.15 Excavations and associated water control

Excavation is not required

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

Contractor to assess area of works as report risks prior to works commence.

5.1.17 Control of noise, dust, water and waste

- All necessary and relevant PPE must be used at all time when entering or working on plant
- Risk assessments must be completed before commencing with any task to be current at all times (Live Document)
- All relevant procedures to be used at all times

5.1.18 Sequences of construction or installation

Contractor to provide us with the schedule

5.1.19 Giving notice of work to be covered up

The employer shall Issue notice as early as possible as per the ECC contract

5.1.20 Hook ups to existing works

Hooking up on heights is a non-negotiable Lifesaving rule of Eskom. Kusile Power Station applies Zero Tolerance to non-compliance of this rule or any other Lifesaving rule. The same disciplinary process procedure will be followed when any of the Lifesaving rules have been breached

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

All work is to be done and commissioned by the Completion Date.

5.2.2 Use of the works before Completion has been certified

Completion is when the Contractor has done all the work, which the Works Information states he is to do by the Completion Date and has corrected notified Defects, which would have prevented the Employer from using the works. The Site is handed back to the Employer in a condition acceptable to the Service Manager

5.2.3 Materials facilities and samples for tests and inspections

The Employer shall conduct Civil checks

5.2.4 Commissioning

Contractor to follow the scope of work

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

Contractor to issue procedures to the employer

5.2.6 Take over procedures

Applicable as mentioned above on the scope of work section

5.2.7 Access given by the Employer for correction of Defects

Access will be granted to the contractor to correct defects

5.2.8 Performance tests after Completion

Not applicable

5.2.9 Training and technology transfer

Not applicable

5.2.10 Operational maintenance after Completion

The Employer will require the Contractor before the defects date to perform fault finding and repairs should there be a standing fault as a result of a defect as per notification of the Employer.

Plant and Materials standards and workmanship

5.3 Investigation, survey and Site clearance

Not Applicable

5.4 Building works

Not Applicable

5.5 Civil engineering and structural works

Applicable as per SOW

5.6 Electrical & mechanical engineering works

Not Applicable

5.7 Process control and IT works

Not Applicable

5.8 Other [as required]

Not applicable

6 List of drawings

6.1 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.

NB: Please refer to Standards & Specifications and Drawing Pack and Concept Report

Drawing number	Revision	Title
240-165915950	1	Concept Design Report Kusile Power Station Compressor Building West & East Dust Ingress Prevention
0.90/1761	0	Kusile Power Station Piling Layout Plan UHQ Fabric Filter Plant Unit 1
366-421318	0	Kusile Power Station Concrete Layout and detail drawing UHQ Fabric Filter Plant Unit 1 Pile cap and stub column layout and sections.
B114109-50-17-IC32-00001-AB	2	Kusile Power Station Reinforcement Drawing UHQ_Fabric filter plant Unit 1 Reinforcement Layout
0.90/5284	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Section G-G, H-H, I-I, K-K
0.90/5278	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler)
0.90/5280	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Section E-E and F-F
0.90/5281	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Level 0,0m
0.90/5282	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Level 5,80m
0.90/5283	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Level 11,80m

0.90/5040	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Top View
0.905284	0	Kusile Power Station Arrangement Plan Fabric Filter Unit 1-6 for 1 Boiler (1- 6 Boiler), Section G-G, H-H, I-I, K-K

C3.2 CONTRACTOR'S WORKS INFORMATION

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

Typical sub headings could be

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

This section could also be compiled as a separate file.
