

THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.



## NEC3 Engineering & Construction Contract

Between **ESKOM ROTEK INDUSTRIES SOC Ltd**  
(Reg No. 1990/006897/30)

and **Awarded Supplier**

for **THE REPAIR OF KWS STEEL PIPE FOR A PERIOD  
OF FIVE YEARS ON AN AS AND WHEN REQUIRED  
BASIS.**

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**CONTRACT No. [Insert at award stage]**

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THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

## Part C1: Agreements & Contract Data

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THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

## 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:

### THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN “AS AND WHEN REQUIRED BASIS.”

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	<b>R 0.0</b>
	Value Added Tax @ 15% is	<b>R 0.0</b>
	The offered total of the amount due inclusive of VAT is <sup>1</sup>	<b>R 0.0</b>

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) **Awarded Supplier** \_\_\_\_\_

Capacity \_\_\_\_\_

**For the tenderer:** \_\_\_\_\_

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

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

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.****Acceptance**

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

The terms of the contract, are contained in:

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

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

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

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

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

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

Signature(s)

Name(s)	.....
Capacity	Sizo Myeni BMS General Manager
for the Employer	Eskom Rotek Industries SOC Limited Lower Germiston Road Rosherville Johannesburg 2022

Name &  
signature of  
witness

Date

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

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	<b>None</b>	<b>None</b>

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:**

Signature

Name      Awarded Supplier

Capacity

On behalf  
of

Name &  
signature  
of witness

Date

**For the Employer**

Sizo Myeni

BMS General Manager

**Eskom Rotek Industries SOC Limited  
Lower Germiston Road  
Rosherville  
Johannesburg  
2022**

THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

## 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. If 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	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	A: <b>Priced contract with activity schedule</b>
	and secondary Options	W1: <b>Dispute resolution procedure</b>
		X2: <b>Changes in the law</b>
		X5 & X7: <b>Sectional Completion &amp; Delay Damages used together</b>
		X16: <b>Retention</b>
		X17: <b>Low service damages</b>
		X18: <b>Limitation of liability</b>
		Z: <b>Additional conditions of contract</b>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	<b>Eskom Rotek Industries SOC Limited</b>
	Employer Representative:	<b>Sizo Myeni</b>
	Address	<b>Eskom Rotek Industries SOC Limited Lower Germiston Road Rosherville Johannesburg 2022</b>
10.1	The <i>Project Manager</i> is: (Name)	<b>Kefentse Letsoko</b>

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Address	Eskom Rotek Industries SOC Limited Lower Germiston Road Rosherville Johannesburg 2022	
Tel	013 297 1100	
e-mail	Letsokkwa@eskom.co.za	
10.1	The Supervisor is: (Name)	Jonas Mokoena
Address	Eskom Rotek Industries SOC Ltd Roshland Office Park Lower Germiston Road Rosherville	
Tel No.	013 297 1100	
e-mail	Mokoenmj@eskom.co.za	
11.2(13)	The works are	<b>THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.</b>
11.2(14)	The following matters will be included in the Risk Register	<ol style="list-style-type: none"> <li>1. Weather conditions</li> <li>2. Road Conditions</li> <li>3. Community Protests</li> <li>4. Standing time and Stoppages</li> </ol>
11.2(15)	The boundaries of the site are	Komati Water Scheme Pipelines.
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 refers.
12.2	The law of the contract is the law of	the Republic of South Africa
13.1	The language of this contract is	English
13.3	The period for reply is	<ul style="list-style-type: none"> <li>• 2 days for emergency correspondence (EW, NCRs, and safety related matters).</li> <li>• 5 days for non-urgent/general correspondence</li> </ul>
2	<b>The Contractor's main responsibilities</b>	Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.
3	<b>Time</b>	
11.2(3)	The completion date for the whole of the works is	<p>Start Date: 01 December 2023</p> <p>Completion Date: 30 November 2028</p>

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11.2(9)	The key dates and the conditions to be met are:	Condition to be met	key date
		1 <b>Fabrication of the pipe at the Workshop</b>	As per the project plan
		2 <b>Installation of the pipe on site</b>	As per the project plan
		3 <b>Welding of the pipe on site</b>	As per the project plan
		4 <b>Welding MPI Test</b>	As per the project plan

30.1	The access dates are:	Part of the Site	Date
		1 <b>KWS Pipeline</b>	<b>01 December 2023</b>

31.1	The Contractor is to submit a first programme for acceptance within	<b>Two weeks of the Contract Date.</b>
31.2	The starting date is	<b>01 December 2023</b>
32.2	The Contractor submits revised programmes at intervals no longer than	<b>Four weeks.</b>

#### 4 Testing and Defects

42.2	The defects date is	<b>52 weeks after Completion of the whole of the works.</b>
43.2	The defect correction period is	<b>Within 3 days after notice of defect by the Employer.</b>

#### 5 Payment

50.1	The assessment interval is	<b>between the 25th day of each successive month.</b>
51.1	The currency of this contract is the	<b>South African Rand.</b>
51.2	The period within which payments are made is	<b>Eight (8) weeks.</b>
51.4	The interest rate is	<p><b>the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</b></p> <p><b>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if</b></p>

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

## 6 Compensation events

60.1(13)	<p>The place where weather is to be recorded is:</p> <p>The <i>weather measurements</i> to be recorded for each calendar month are,</p> <p>The <i>weather measurements</i> are supplied by</p> <p>The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:</p> <p>and which are available from:</p>	<p><b>KWS Pipelines</b></p> <p><b>As per appendix A</b></p> <p><b>the number of days with rainfall more than 10 mm</b></p> <p><b>SA Weather Bureau for WEATHER BUREAU 2908025, RAINFALL STATION NO: 480/184 (515), CAROLINA.</b></p> <p><b>Vygeboom Pump Station</b></p> <p><b>the South African Weather Bureau and included in Annexure A to this Contract Data provided by the Employer</b></p>
60.1(13)	<p>Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:</p>	<p><b>As stated in Annexure A to this Contract Data provided by the Employer.</b></p> <p><b>Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.</b></p>

## 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	<p><b>1. Weather Conditions</b></p> <p><b>2. Road Conditions</b></p> <p><b>3 Community Unrest</b></p>
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## 9 Termination

**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**

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- In addition to those reasons listed in 91.1 to 91.7, the following additional reasons for termination will apply:
- Low services damages table X17.1
- Notwithstanding the delay damages indicated in X7, the Employer may terminate this contract agreement due to the following:
- Failure by the Contractor to mobilise resources as stated in the task order within 30 days after receipt of the task order.
- Termination of the main contract agreement that the Employer has with its client, for any reason under the scope that is executed by the tenderer/contractor. Such termination will be applied as back-to-back contract condition to this agreement.

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**10 Data for main Option clause**


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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.
60.6	The <i>method of measurement</i> is	Published by and amended as stated in Part C2.1, Pricing Assumptions.

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**11 Data for Option W1**


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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 <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	N/A
	Tel No.	N/A
	Fax No.	N/A
	e-mail	N/A
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 <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ) 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

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		body.												
	The place where arbitration is to be held is	<b>South Africa</b>												
	The person or organisation who will choose an arbitrator													
<ul style="list-style-type: none"> <li>- if the Parties cannot agree a choice or</li> <li>- if the arbitration procedure does not state who selects an arbitrator, is <b>the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.</b></li> </ul>														
<b>12</b>	<b>Data for secondary Option clauses</b>													
<b>X1</b>	<b>Price adjustment for inflation</b>													
<b>X1.1</b>	The base date for indices is:	<b>July 2023</b>												
	The proportions used to calculate the Price Adjustment Factor are	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Description</th> <th style="width: 20%;">Contribution Portion</th> <th style="width: 40%;">Applicable Table</th> </tr> </thead> <tbody> <tr> <td>Labour</td> <td>27%</td> <td>SEIFSA C3</td> </tr> <tr> <td><b>Materials</b></td> <td><b>63%</b></td> <td><b>SEIFSA</b></td> </tr> <tr> <td><b>Fixed Portion (non-adjustable)</b></td> <td><b>15%</b></td> <td></td> </tr> </tbody> </table>	Description	Contribution Portion	Applicable Table	Labour	27%	SEIFSA C3	<b>Materials</b>	<b>63%</b>	<b>SEIFSA</b>	<b>Fixed Portion (non-adjustable)</b>	<b>15%</b>	
Description	Contribution Portion	Applicable Table												
Labour	27%	SEIFSA C3												
<b>Materials</b>	<b>63%</b>	<b>SEIFSA</b>												
<b>Fixed Portion (non-adjustable)</b>	<b>15%</b>													
<b>X2</b>	<b>Changes in the law</b>	<b>Is a compensation event if it occurs after the Contract Date</b>												
<b>X7</b>	<b>Delay Damages</b>	<b>1% deductible per day, capped at 10% of the contract</b>												
<b>X16</b>	<b>Retention</b>													
X16.1	The retention free amount is	<b>R 0.00</b>												
	The retention percentage is	<b>0%</b>												
<b>X17</b>	<b>Low Service Damages</b>	<b>Refer to Table X17.1 below.</b>												
<b>X18</b>	<b>Limitation of liability</b>													
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to:	<b>10% of the contract total amount</b>												
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:	<b>the amount of the deductibles relevant to the event</b>												
X18.3	The Contractor's liability for Defects due to his design which are not listed on the Defects Certificate is limited to	<p><b>The greater of the total of the Prices at the Contract Date and</b></p> <ul style="list-style-type: none"> <li>• 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</li> </ul>												

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		at contract date.
X18.4	The Contractor's total liability to the Employer for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	<p><b>the total of the Prices other than for the additional excluded matters.</b></p> <p><b>The Contractor's total liability for the additional excluded matters is not limited.</b></p> <p><b>The additional excluded matters are amounts for which the Contractor is liable under this contract for</b></p> <p><b>Defects due to his design which arise before the Defects Certificate is issued,</b>  <b>Defects due to manufacture and fabrication outside the Site,</b>  <b>loss of or damage to property (other than the works, Plant and Materials),</b>  <b>death of or injury to a person and</b>  <b>infringement of an intellectual property right.</b></p>
X18.5	The end of liability date 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 Employer or the Supervisor before the <i>defects date</i>, without requiring any inspection not ordinarily carried out by the Employer or the Supervisor during that period. If the Employer or the Supervisor do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the Employer or the Supervisor to have discovered the Defect.</p>
Z	<b>The Additional conditions of contract are</b>	<b>Z1 to Z15 always apply.</b>

## Z1 Cession delegation and assignment

- Z1.1 The Contractor does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the Employer.
- Z1.2 Notwithstanding the above, the Employer may on written notice to the Contractor cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

## Z2 Joint ventures

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

- Z2.1 If the *Contractor* constitutes a joint venture, consortium, or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium, or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

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

**Z4 Confidentiality**

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

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.****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 to the following invoicing month without attracting any interest to the Employer nor. The Contractor will ensure that operations are not impacted nor effected its failure to submit valid and correct tax invoices on time.

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**

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

- 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.
- Z11.2 Notwithstanding the Delay damages, failure for the Contractor to mobilise resources on site within 30 days after receipt of task order/conclusion of contract then ERI may terminate the contract.
- Z11.3 Should the Contractor be unable to repair/replace the Pipe within the 25 days as stipulated in the Low Services Damage Table below, The Employer may exercise its right to terminate the contract without notice.
- Z11.4 The contract amount is depleted before the term of the contract is completed.

**Z12 Ethics**

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

- Affected Party** means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,
- Coercive Action** means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
- Collusive Action** means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
- Committing Party** means, as the context requires, the *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractor or the Subcontractor's employees,
- Corrupt Action** means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
- Fraudulent Action** means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
- Obstructive Action** means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

**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 indemnity
Loss of or damage to the works, Plant and Materials	The replacement cost where not covered by the <i>Employer</i> 's insurance
	The <i>Employer</i> 's policy deductible, as at Contract Date, where covered by the <i>Employer</i> 's insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i> ) caused by activity in connection with this contract	<u>Loss of or damage to property</u> <u>Employer's property</u> The replacement cost where not covered by the <i>Employer</i> 's insurance  The <i>Employer</i> 's policy deductible, as at Contract Date, where covered by the <i>Employer</i> 's insurance

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	<i>Employer's insurance</i>  <u>Other property</u> The replacement cost  <u>Bodily injury to or death of a person</u> The amount required by applicable law
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the 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 limit of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

## Z14 Nuclear Liability

Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 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

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

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:

<b>AAIA</b>	means approved asbestos inspection authority.
<b>ACM</b>	means asbestos containing materials.
<b>AL</b>	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.
<b>Ambient Air</b>	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.
<b>Compliance Monitoring</b>	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.
<b>OEL</b>	means occupational exposure limit.
<b>Parallel Measurements</b>	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
<b>Safe Levels</b>	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.
<b>Standard</b>	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
<b>SANAS</b>	means the South African National Accreditation System.
<b>TWA</b>	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.

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

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

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

Z15.5 The *Contractor*'s personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer*'s expense, and conducted in line with South African legislation.

**Annexure A: One-in-ten-year-return weather data obtained from SA Weather Bureau for WEATHER BUREAU 2908025, RAINFALL STATION NO: 480/184 (515), CAROLINA.**

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

Weather Measurements			
Month	Cumulative rainfall (mm)	Number of days with rain more than 10mm	[Other measurements if applicable]
January	127.8	4	
February	91.2	3	
March	82.1	3	
April	40.8	2	
May	17.9	0	
June	10.2	0	
July	6.7	0	
August	11.7	0	

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September	<b>26.4</b>	<b>1</b>	
October	<b>79.3</b>	<b>3</b>	
November	<b>135.1</b>	<b>5</b>	
December	<b>117.5</b>	<b>4</b>	

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

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## C1.2 Contract Data

### Part two - Data provided by the Contractor

#### Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)<sup>2</sup> 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 key persons</i> are:  1 Name: Job: Responsibilities: Qualifications: Experience:  2 Name: Job Responsibilities: Qualifications: Experience:  3 Name:	

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see [www.ecs.co.za](http://www.ecs.co.za)

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	Job																
	Responsibilities																
	Qualifications																
	Experience																
11.2(3)	The <i>completion date</i> for the whole of the works is	As per the project plan															
11.2(14)	The following matters will be included in the Risk Register	<ol style="list-style-type: none"> <li>1. Weather conditions</li> <li>2. Road Conditions</li> <li>3. Community Protests</li> <li>4. Standing time and Stoppages</li> </ol>															
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:	<b>Designs to be accepted and approved by Eskom</b>															
31.1	The programme identified in the Contract Data is	<b>The contractor submits the first programme to the Project Manager for acceptance within the period stated in the Contract Data</b>															
<b>A</b>	<b>Priced contract with activity schedule</b>																
11.2(20)	The <i>activity schedule</i> is in	<b>C2.2 of the Contract Data</b>															
11.2(30)	The tendered total of the Prices is	<b>R 0.0</b>															
<b>A</b>	<b>Priced contract with activity schedule</b>	<b>Data for the Shorter Schedule of Cost Components</b>															
41 in SSCC	The percentage for people overheads is:																
21 in SSCC	<p>The published list of Equipment is the last edition of the list published by</p> <p>The percentage for adjustment for Equipment in the published list is</p>	<b>0%</b>															
22 in SSCC	The rates of other Equipment are:	<table border="1"> <thead> <tr> <th>Equipment</th> <th>Size or capacity</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>Crane</td> <td></td> <td></td> </tr> <tr> <td>Mobile Generator</td> <td></td> <td></td> </tr> <tr> <td>Welding Machine</td> <td></td> <td></td> </tr> <tr> <td>Cutting Machine</td> <td></td> <td></td> </tr> </tbody> </table>	Equipment	Size or capacity	Rate	Crane			Mobile Generator			Welding Machine			Cutting Machine		
Equipment	Size or capacity	Rate															
Crane																	
Mobile Generator																	
Welding Machine																	
Cutting Machine																	
61 in SSCC	<p>The hourly rates for Defined Cost of design outside the Working Areas are</p> <p><b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</b></p>	<table border="1"> <thead> <tr> <th>Category of employee</th> <th>Hourly rate</th> </tr> </thead> </table>	Category of employee	Hourly rate													
Category of employee	Hourly rate																

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	<b>Please insert another schedule if foreign resources may also be used</b>			
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:			
24 in SCC	The rates of special Equipment are:	<b>Equipment</b>	<b>Size or capacity</b>	<b>Rate</b>
44 in SCC	The percentage for Working Areas overheads is:			
51 in SCC	<p>The hourly rates for Defined Cost of manufacture or fabrication outside the Working Areas are</p> <p><b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates</b></p> <p><b>Please insert another schedule if foreign resources may also be used</b></p>	<b>Category of employee</b>		<b>Hourly rate</b>
52 in SCC	The percentage for manufacture and fabrication overheads is			

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## 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:

<b>Identified and defined terms</b>	11
	11.2

(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(27) The Price for Work Done to Date is the total of the Prices for each group of completed activities and each completed activity which is not in a group.

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

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

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

### Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

### Link to the Contractor's plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

### Preparing the *price list*

Before preparing the *price list*, both the *Employer* and tendering contractors should read the TSC3 Guidance Notes pages 14 and 15. In an Option A contract, either Party may have entered items into the *price list* either as a process of offer and acceptance (tendering) or by negotiation depending on the nature of the *service* to be provided. Alternatively 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 the *price list* to be prepared and priced by him.

It is assumed that in preparing or finalising the *price list* the *Contractor*:

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- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;
- Has listed and priced items in the *price list* which are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service 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 item within the Prices or rates of other listed items in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.
- Understands there is no adjustment to items priced as lump sums if the amount, or quantity, of work within that item later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the (lump sum) Prices is as a result of a compensation event.
- Eskom Rotek Industries is affiliated with various statutory bodies such as the MEIBC. Resources employed or contracted to execute work directly or indirectly as the case may be remunerated in accordance with the MEIBC rates or statutory body in that particular site. As such, it will be assumed that Contractors, Service Providers, Subcontractors, etc have taken this into account and have done the necessary due diligence to ensure stability on all ERI sites and operations as far as reasonably possible.

**Format of the *price list***

(From the example given in an Appendix within the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tendering contractor enters the amount in the Price column only, the Unit, Expected Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for an item of work which is the rate for the work multiplied by the quantity completed, the tendering contractor enters the rate which is then multiplied by the Expected Quantity to produce the Price, which is also entered.

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

## C2.2 the activity schedule

Activity Schedule Pricing:

<b>Project Name: The Provision of Maintenance and Repair of all Komati Water Scheme Steel Pipeline for a period of five (5) years, on an as when required basis.</b>					
Item No.	Description	Unit	Qty	Rate	Total
A	<b>Preliminaries and Generals</b>				
	Medicals for site team	Annual	5		
	PPE for site team	Annual	5		
	Safety File	Annual	5		
<b>Sub total</b>					
<b>SCOPE OF WORK FOR THE REPAIR OF VJ COUPLING A</b>					
C	Description	Unit	Qty	Unit Price	Total
	Site establishment and De-establishment	Every Repair	10		
	25 Ton Truck Mounted Crane	Every Repair	10		
	Accommodation	Every Repair	10		
	Travelling / Transport - Truck Mounted Crane	km	5800		
	Travelling / Transport - Kombi for transpoting employees	km	1380 0		
	Travelling / Transport - Truck for tools	km	1380 0		
	Use attached drawings (Bosloop to Winterhoek pipeline VJCoupling pipeline repair), ( Bosloop to Wintershoek pipeline coupling) as reference to produce final and approved drawings and designs for the pipe leak repair.	Every Repair	10		

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

Before any work can commence on site, the design for the temporary supports to be placed at points A and T (on attached drawing) will be Accepted by Eskom. At point A and point T the temporary supports must be able to support the weight of the existing once it is cut for quotation purposes, the existing pipes dimensions are 1200NB X 16meters long X 15mm thick with 20mm mortar lining	Every Repair	10		
The Existing pipe must be cut at point B, before the existing support C. At point S the existing pipe must be cut 100mm after the existing support R	Every Repair	10		
Fabricate four pipe sections as indicated on drawing points D, F, O, and Q. The pipe should be mortar lined.	Every Repair	10		
Supply 2X Klamflex couplings for points E and P. refer to "Bosloop to Wintershoek pipeline coupling" drawings Consider ambient temperature while fitting clamps to ensure correct setting gap.	Every Repair	10		
3 X permanent supports to be cast for point G, J and N as per approved plinth design compiled by contractor and approved by Eskom	Every Repair	10		
Supply 1200NB pipe, 15mm thick for quotation purposes, 2x6m long with 2X lifting lugs at points I and L. The pipe should be mortar lined	Every Repair	10		
Prepare pipes and fillet, weld inside and outside at point B, H, M and S on site. Allow an extra 4 welds in case of unplanned conditions on site	Every Repair	10		
All welds shall comply with the API1104 standard. (8mm fillet weld).	Every Repair	10		
All pipe sections to be coated with "2 pack Epoxy" externally with a minimum 250µm dry film thickness plus recoatable polyurethane brilliant green H10 40µm topcoat	Every Repair	10		
Include 3rd party for welding test MPI and to use a test report	Every Repair	10		
Supply 4 X 1200NB smart seals (for quotation purposes, final sizes to be confirmed on site) 2 complete with stainless steel compression rings from Delmon Mining and Civils	Every Repair	10		
Supply 8 X 500ml EPIDERMIX 365 clear from ABE	Every Repair	10		

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	For the duration of the project on site, the contractor will be responsible for the following: - -The supply of the mobile generator suitable for cutting and welding on site -Welding and cutting machines -Lifting machines and lifting tackle in line with "Driven Machinery Regulation" -Drinking water, portable toilets, tools and consumables -Work would be done at an open veld	Every Repair	10	
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<b>TOTAL COSTS FOR DESIGNS FABRICATION AND INSTALLATION OF THE VJ COUPLING</b>	

SCOPE OF WORK FOR THE REPAIRS OF THE SCOUR VALVE (B)					
	Description	Unit	Qty	Unit Price	Total
D	25 Ton Truck Mounted Crane	Every Repair	10		
	Accommodation	Every Repair	10		
	Travelling / Transport - Truck Mounted Crane	km	4600		
	Travelling / Transport - Kombi for transpoting employees	km	4600		
	Refer to the paragraph in 3.1 for repairs to scour pipe. Point A- In order to expose undamaged section of the pipe, cut concrete 1500mm X 1500mm X 200mm depth from the surface of the slab	Every Repair	10		
	Point B- Cut pipe 10mm from the remaining concrete surface Weld 200NB, 15mm thick pipe, 400mm long pipe to extend the pipe concrete surface	Every Repair	10		
	Point C- Weld 200NB, 15mm thick, 90° long radius elbow pipe to extended pipe	Every Repair	10		
	Point D- Weld a flange with a drilling table matching the existing valve. (for quotation purposes, consider it to be BS4504 of 1989 PN40 drilling table)	Every Repair	10		
	Fabricated pipe sections should be corrosion protected to DWS9900 specifications All pipe lining sections to be 400µm minimum and to be coated with "2 pack Epoxy"externally with a minimum 250µm dry film thickness plus recoatable polyurethane Brilliant green H10 40µm topcoat	Every Repair	10		
	Include 3rd party for welding test MPI and to issue a test report	Every Repair	10		

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

	For the duration of the project on site, the contractor will be responsible for the following: - -The supply of the mobile generator suitable for cutting and welding on site -Welding and cutting machines -Lifting machines and lifting tackle in line with "Driven Machinery Regulation" -Drinking water, portable toilets, tools and consumables -Work would be done at an open veld	Every Repair	10	
	<b>TOTAL COSTS FOR THE FABRICATION AND INSTALLATION OF THE SCOUR PIPE</b>			

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<b>SCOPE OF WORK FOR THE REPAIRS OF STEEL PIPE SECTION (C)</b>				
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<b>E</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Total</b>
	25 Ton Truck Mounted Crane	Every Repair	10		
	Accommodation	Every Repair	10		
	Travelling / Transport - Truck Mounted Crane	km	6600		
	Travelling / Transport - Kombi for transporting employees	km	6600		
	Fabricate steel pipe section making attached drawings as reference, once final sizes are confirmed on site	Every Repair	10		
	Internal corrosion protect pipe with cement mortar lining 20mm thickness and allow for mortar lining repairs on site after welding	Every Repair	10		
	Apply bitumen primer on pipe external only	Every Repair	10		
	All welds shall comply with the API1104 standard. (8mm fillet weld).	Every Repair	10		
	Include 3rd party for welding test MPI and to issue a test report	Every Repair	10		

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	For the duration of the project on site, the contractor will be responsible for the following: - -The supply of the mobile generator suitable for cutting and welding on site -Welding and cutting machines -Lifting machines and lifting tackle in line with "Driven Machinery Regulation" -Drinking water, portable toilets, tools and consumables -Work would be done at an open veld	Every Repair	10		
	Cut and remove pipe section on site to accommodate fabricated pipe section. <b>Note that existing pipe is mortar lined and access point is about 200m from the leaking area</b>	Every Repair	10		
	Prepare pipe ends and fit new pipe section	Every Repair	10		
	Weld pipe in position inside and outside, use 150NB stub for cables and pipes	Every Repair	10		
	Include 3rd party for welding test MPI and to use a test report	Every Repair	10		
	Repair mortar lining and cover welded areas	Every Repair	10		
	<b>TOTAL COSTS FOR FABRICATION AND INSTALLATION ON SITE</b>				

## SCOPE OF WORK FOR REPLACING PRE-CAST CONCRETE PIPE WITH STEEL PIPE (D)

	Description	Unit	Qty	Rate	Total
	25 Ton Truck Mounted Crane	Every Repair	10		
	Accommodation	Every Repair	10		
	Travelling / Transport - Truck Mounted Crane	km	6600		
	Travelling / Transport - Kombi for transpoting employees	km	6600		
	Fabricate four concretes to steel pipe adaptor as per Eskom drawing number 0.80/6135 Rev.1	Every Repair	10		
F	Inspection and release for coating. Note: the face to be welded on site shall have antirust material	Every Repair	10		
	Corrosion protection to DWS 9900. Solvent free epoxy	Every Repair	10		
	Inspect and release for site work	Every Repair	10		

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

	Cut four sides (allowing for pieces if there are gaps on site) of 1100 nominal bore 15mm thick pipe and prepare for welding	Every Repair	10		
	Provide two lifting lugs and weld them on the pipe	Every Repair	10		
	Supply 4 X 1200NB smart seals (for quotation purposes, final sizes to be confirmed on site) each complete with 2 stainless steel compression rings from Delmon Mining and Civils	Every Repair	10		
	Supply 8 X 500ml EPIDERMIX 365 clear from ABE	Every Repair	10		
	Supply 4 X 20mm round bar rolled to 1180 OD steel grade 300WA	Every Repair	10		
	Fit two concrete to steel pipe adaptor on both concrete pipes prepared on site	Every Repair	10		
	Position steel pipe between adaptors and align for welding	Every Repair	10		
	150mm stubs on the adaptor will be used for cable during welding, mobile welding and generator shall be provided by contractor	Every Repair	10		
	Weld both sides of the pipe inside and outside to adaptors (Note: confined space work)	Every Repair	10		
	For the duration of the project on site, the contractor will be responsible for the following: - -The supply of the mobile generator suitable for cutting and welding on site -Welding and cutting machines -Lifting machines and lifting tackle in line with "Driven Machinery Regulation" -Drinking water, portable toilets, tools and consumables -Work would be done at an open veld	Every Repair	10		
	Include 3rd party for welding test MPI and to use a test report	Every Repair	10		
	Include lifting machine and tackles for site work	Every Repair	10		
	<b>TOTAL COSTS FOR FABRICATION AND INSTALLATION ON SITE</b>				
<b>TOTAL COST FOR ONE YEAR</b>					

COSTS SUMMARY	TOTAL UNIT PRICE	TOTAL PRICE
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**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

SCOPE OR WORK FOR THE REPAIRS OF THE VJ COUPLING (A)	R	R
SCOPE OR WORK FOR THE REPAIRS OF THE SCOUR VALVE (B)	R	R
SCOPE OR WORK FOR THE REPAIRS OF STEEL PIPE SECTION (C)	R	R
SCOPE OR WORK FOR REPLACING PRE-CAST CONCRETE PIPE WITH STEEL PIPE SECTION (D)	R	R
FINAL PRICES SUM OF A,B,C,AND D SCOPE	R	R

THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

## PART 3: SCOPE OF WORK

### SCOPE OF WORK

<b>INSTALLATION SITE</b>	: KOMATI WATER SCHEME PIPELINES
<b>DIAMETER OF PIPE SECTION TO BE REPAIRED</b>	: PIPE DIAMETER SHALL BE CONFIRMED ON SITE BEFORE EACH REPAIR
<b>DIAMETER OF STEEL PIPES</b>	: 1200 NB, 200NB, 1100NB AND 1180NB (15 mm THICK, STEEL GRADE 300WA) WOULD BE USED FOR PRISING
<b>SCOPE OF WORK (A)</b>	: 1200NB X 11000 LONG AND 4 OFF 1200NB X1500 WITH STUB AS PER ATTACHED DRAWING MUST BE USED FOR QUOTATION PURPOSES ONLY. FINAL DRAWING AND SUPPORT DESIGNS MUST BE PRODUCED BY THE SUCCESSFUL CONTRACTOR ONCE THE EXISTING PIPE DIMENSIONS HAVE BEEN VERIFIED ON SITE. THE DRAWINGS ARE TO BE SUBMITTED TO ESKOM FOR APPROVAL.
<b>SCOPE OF WORK (B)</b>	: 200NB SCOUR/DRAIN PIPE REPLACEMENT.
<b>SCOPE OF WORK (C)</b>	: 1100NB X 5000 LONG WITH 150NB STUB AND TWO ADAPTOR FLANGES AS PER ATTACHED DRAWING WHICH SHOULD BE USED FOR QUOTATION PURPOSES ONLY. FINAL SIZES WILL BE CONFIRMED BEFORE FABRICATION BY THE SUCCESSFUL CONTRACTOR.
<b>SCOPE OF WORK (D)</b>	: REPLACE 1180NB PRECAST CONCRETE PIPE WITH A STEEL PIPE SECTION

### APPROVALS

QUALITY CONTROLLER		TECHNICIAN		PROJECT MANAGER		COMPLIANCE ENGINEER		ENGINEER	
NAME		NAME	MG NTULI	NAME	LB NKONDE	NAME	MJ MOKOENA	NAME	
SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE	
DATE		DATE		DATE		DATE		DATE	

### Background

The Bosloop to Wintershoek A pipeline is used to pump water from Bosloop reservoir to Nooitgedacht dam and forms part of the Komati Water Scheme supplying water to Arnot, Hendrina, Duvha and Komati power stations. The first 20 km of the pipeline is a 1200 NB Diameter steel pipe and the next 22km of the pipeline is precast concrete. The pipeline is installed underground level but several sections of the pipeline is exposed. At one of the exposed sections, the steel pipe is joined with a VJ type coupling.

After an internal inspection, it was noted that the two ends of the pipe had pushed into each other over a period of time and damaged the ends of the pipe to such an extent that the VJ coupling could not seal the join anymore.

In order to repair the leak, the existing join will have to be cut out, and a new section of pipe has to be welded in. After welding in the section of pipe and leaving sufficient gap for the pipe to expand and contract a new coupling can be fitted.

DESCRIPTION	RESPONSIBILITIES

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

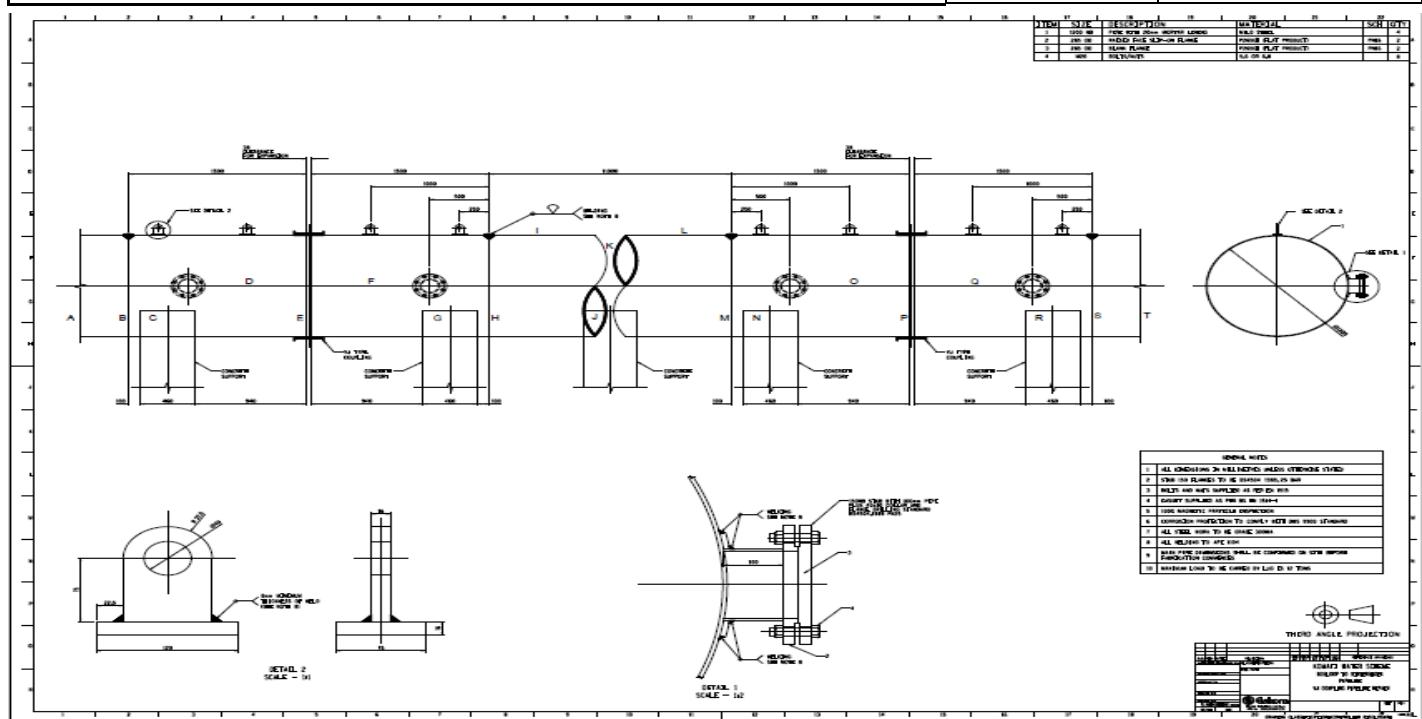
1.1	Approved outage plan/ Corrective Maintenance	PED and KWS
1.2	Request a Permit To Work	KWS
1.3	Isolate, and Scour pipeline section	KWS
1.4	Prove positive isolation	KWS
1.5	Load a purchase requisition including this scope of work	KWS
1.6	Fabricate and install new pipe sections as per final approved drawing for each pipe repair method.	Successful Contractor

## SCOPE OR WORK FOR THE REPAIRS OF THE VJ COUPLING (A)

	DESCRIPTION	Quantit y	UNIT PRICE	TOTAL EXCL. VAT
2.1	Safety file shall be approved before site establishment	Every year (5)	R	R
2.2	Using the attached drawings (Bosloop to Wintershoek Pipeline VJ Coupling Pipeline repair), (Bosloop to Wintershoek Pipeline coupling) as reference to produce final and approved drawings and designs for Pipe leak repair.	Every repair (10)	R	R
2.3	Before any work can commence on site, the design for the temporary supports to be placed at point A and T (on attached drawing) will be approved by Eskom. At point A and point T the temporary supports must be able to support the weight of the existing pipe once it is cut. For quotation purposes, the existing pipes dimensions are 1200NB X 16meters long X 15mm thick with 20mm mortar lining.	Every repair (10)	R	R
2.4	The existing pipe must be cut at point B, 100mm before the existing support C. At point S, the existing pipe must be cut 100mm after the existing	Every repair (10)	R	R
2.5	Fabricate four pipe sections as indicated on drawing points D,F,O and Q. The pipe should be mortar lined.	Every repair (10)	R	R
2.6	Supply 2X Klamflex couplings for point E and P, refer to "Bosloop to Wintershoek Pipeline coupling" drawing. Consider ambient temperature while fitting clamps to ensure correct setting gap.	Every repair (10)	R	R
2.7	3 X permanent supports to be cast for point G,J and N as per approved plinth design compiled by Contractor and approved by Eskom.	Every repair (10)	R	R
2.8	Supply 1200NB pipe 15mm thick, for quotation purposes, 11m long with 2 X lifting lugs at point I and L. The pipe should be mortar lined.	Every repair (10)	R	R
2.9	Prepare pipes and fillet weld inside and outside at point B, H, M and S on site <small>Allow an extra 4 welds in case of unplanned conditions on site</small>	Every repair (10)	R	R
2.10	All welds shall comply with the API1104 standard. (8mm Fillet weld)	Every repair (10)	R	R
2.11	All pipe sections to be coated with "2 pack Epoxy" externally with a minimum 250µm dry film thickness plus Re-coatable polyurethane <small>Brilliant Green H10 40µm topcoat</small>	Every repair (10)	R	R

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

2.1 2	Include third party for welding test MPI and to issue a test report	Every repair (10)	R	R
2.1 3	Supply 4 X 1200NB smart seals (for quotation purposes, final sizes to be confirmed on site) each complete with 2 stainless steel compression rings from Delmon Mining and Civils.	Every repair (10)	R	R
2.1 4	Supply 8 X 500ml EPIDERMIX 365 Clear from ABE	Every repair (10)	R	R
2.1 5	For the duration of the project on site, the Contractor will be responsible for the following: <ul style="list-style-type: none"> <li>The supply of a mobile generator suitable for cutting and welding on site.</li> <li>Welding and cutting machines</li> <li>Lifting machine and lifting tackle in line with "Driven Machinery regulation"</li> <li>Drinking water and portable toilets</li> <li>Work would be done at an open veld</li> </ul>	Every repair (10)	R	R
<b>TOTAL COSTS FOR DESIGNS, FABRICATION AND INSATLLATION OF THE VJ COUPLING</b>		R	R	



## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

SCOPE OR WORK FOR THE REPAIRS OF THE SCOUR VALVE (B)				
	DESCRIPTION	Quantity	UNIT PRICE	TOTAL EXCL. VAT
3.1				
3.2	Refer to the photograph in 3.1 for repairs to scour pipe			
3.3	Point A – In order to expose undamaged section of the pipe, cut concrete 1500mm X 1500mm X 200mm depth from the surface of the slab	Every repair (10)	R	R
3.4	Point B – Cut pipe 100mm from the remaining concrete surface.	Every repair (10)	R	R
3.5	Weld 200NB, 15mm thick pipe, 400mm long pipe to extend the pipe above the concrete surface	Every repair (10)	R	R
3.6	Point C – Weld a 200NB, 15mm thick, 90° long radius elbow pipe to extended pipe.	Every repair (10)	R	R
3.7	Point D – Weld a flange with a drilling table matching the existing valve. (For quotation purposes, consider it to be BS4504 of 1989 PN40 drilling table)	Every repair (10)	R	R
3.8	Fabricated pipe sections should be corrosion protected to DWS9900 specifications.	Every repair (10)	R	R
	All pipe sections lining to be 400µm minimum and to be coated with "2 pack Epoxy" externally with a minimum 250µm dry film thickness plus Re-coatible polyurethane Brilliant Green H10 40µm topcoat.	Every repair (10)	R	R
	Include third party for welding test MPI and to issue a test report	Every repair (10)	R	R

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

3.9	For the duration of the project on site, the Contractor will be responsible for the following: <ul style="list-style-type: none"> <li>• The supply of a mobile generator suitable for cutting and welding on site.</li> <li>• Welding and cutting machines</li> <li>• Lifting machine and lifting tackle in line with "Driven Machinery regulation"</li> <li>• Drinking water and portable toilets</li> <li>• Work would be done at an open veld</li> </ul>	Every repair (10)	R	R
	<b>TOTAL COSTS FOR THE FABRICATION AND INSATLLATION OF THE SCOUR PIPE</b>			

## SCOPE OR WORK FOR THE REPAIRS OF STEEL PIPE SECTION ©

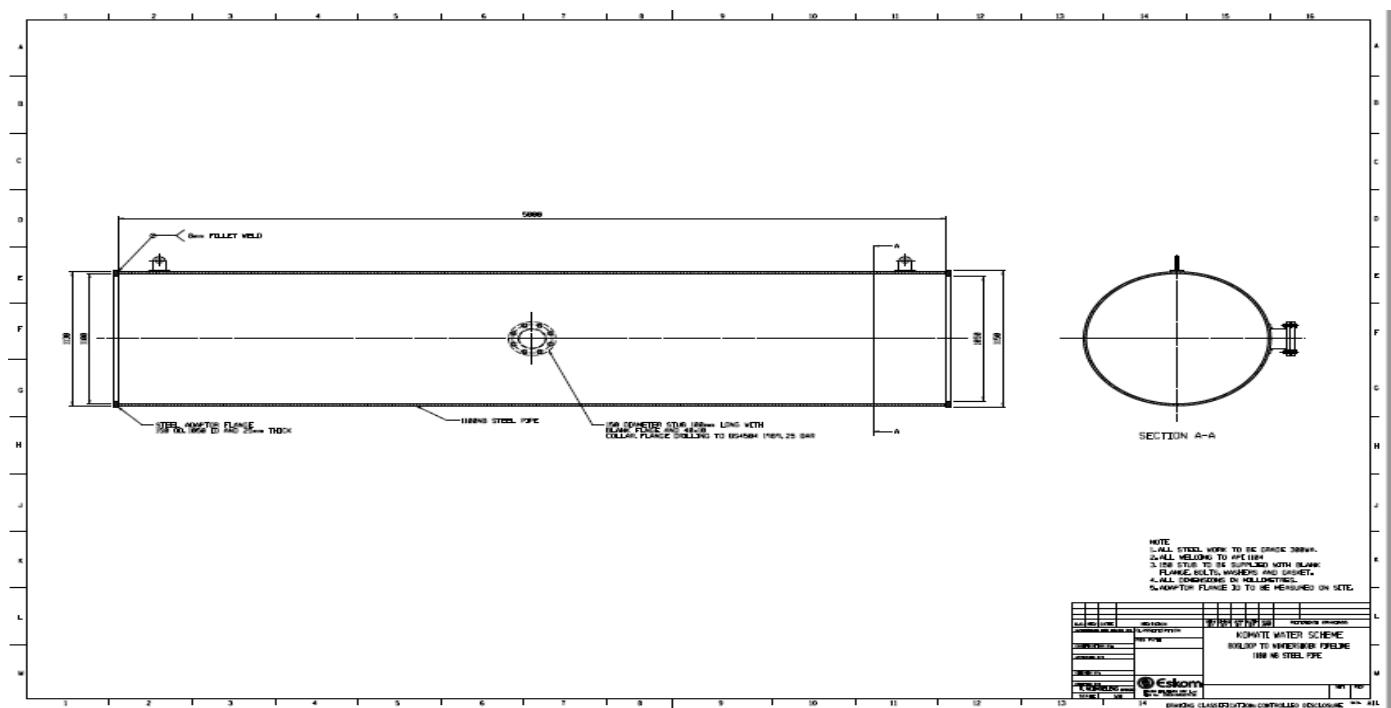


DESCRIPTION	Quantity	UNIT PRICE	TOTAL EXCL. VAT
4.1 Fabricate steel pipe section making attached drawing as a reference, once final sizes are confirmed on site	Every repair (10)	R	R
4.2 Internal corrosion protect pipe with cement mortar lining 20 mm thickness and allow for mortar lining repairs on site after welding	Every repair (10)	R	R
4.3 Apply bitumen primer on pipe external only	Every repair (10)	R	R

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

4.4	All welds shall comply with the API1104 standard.	Every repair (10)	R	R
4.5	Include third party for welding test MPI and to issue a test report before corrosion protection is done at the factory	Every repair (10)	R	R
4.6	Transport of pipe section to site 270 km from Middelburg MP	Every repair (10)	R	R
4.7	For the duration of the project on site, the Contractor will be responsible for the following: <ul style="list-style-type: none"> <li>• The supply of a mobile generator suitable for cutting and welding on site.</li> <li>• Welding and cutting machines</li> <li>• Lifting machine and lifting tackle in line with "Driven Machinery regulation"</li> <li>• Drinking water and portable toilets</li> <li>• Work would be done at an open veld</li> </ul>	Every repair (10)	R	R
4.8	Cut and remove pipe section on site to accommodate fabricated pipe section	Every repair (10)	R	R
4.9	Note that the existing pipe is mortar lined and access point is about 200m from the leaking area	Every repair (10)	R	R
4.10	Prepare pipe ends and fit a new pipe section	Every repair (10)	R	R
4.11	Weld pipe in position inside and outside, use 150 NB stub for cables and pipes	Every repair (10)	R	R
4.12	Include third party for welding test MPI and to issue a test report on site before mortar lining repairs are done	Every repair (10)	R	R
4.13	Repair mortar lining and cover welded areas	Every repair (10)	R	R
<b>TOTAL COSTS FOR FABRICATION AND INSTALLATION ON SITE</b>			R	R

## THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.

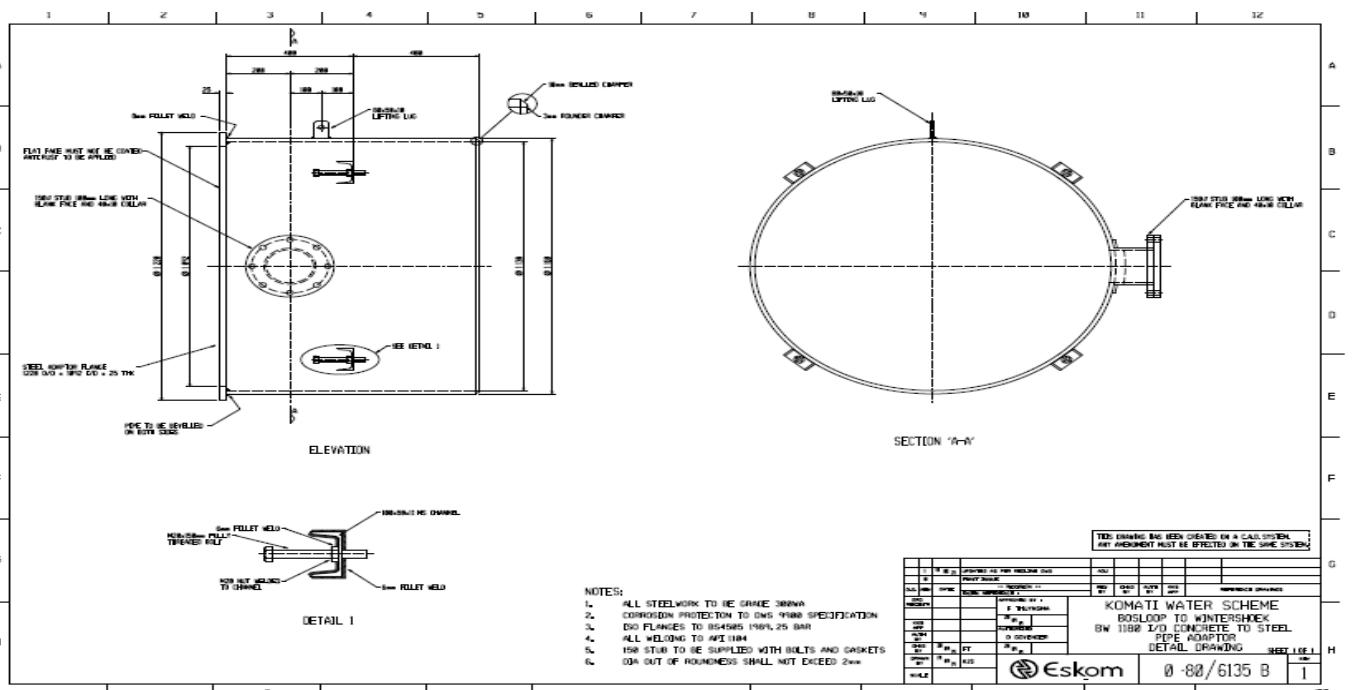


## SCOPE OF WORK FOR REPLACING PRE-CAST CONCRETE PIPE WITH STEEL PIPE SECTION (D)

DESCRIPTION	Quantity	UNIT PRICE	TOTAL EXCL. VAT
5.1 Fabricate FOUR concrete to steel pipe adaptor as per Eskom drawing number 0.80/6135 Rev. 1	Every repair (10)	R	R
5.2 Inspection and release for coating. Note: the face to be welded on site shall have antirust material.	Every repair (10)	R	R
5.3 Corrosion protection to DWS 9900, Solvent free epoxy	Every repair (10)	R	R
5.4 Inspect and release for site work	Every repair (10)	R	R
5.5 Site about 270 km from Middelburg Mpumalanga between Carolina and Machadodorp on the servitude road	Every repair (10)	R	R
5.6 Cut four sides (allowing for pieces if there are gaps on site) of 1100 Nominal bore 15 mm thick pipe and prepare for welding	Every repair (10)	R	R
5.7 Provide two lifting lugs and weld them on the pipe	Every repair (10)	R	R
5.8 Supply 4 X 1200NB smart seals (for quotation purposes, final sizes to be confirmed on site) each complete with 2 stainless steel compression rings from Delmon Mining and Civils.	Every repair (10)	R	R
5.9 Supply 8 X 500ml EPIDERMIX 365 Clear from ABE	Every repair (10)	R	R
5.10 Supply Four 20mm round bar rolled to 1180 OD steel grade 300WA	Every repair (10)	R	R

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

5.1 2	Fit two concrete to steel pipe adaptor on both concrete pipes prepared on site	Every repair (10)	R	R
5.1 3	Position steel pipe between adaptors and align for welding	Every repair (10)	R	R
5.1 4	150mm stubs on the adaptor will be used for cable during welding, mobile welding and generator shall be provided by contractor	Every repair (10)	R	R
5.1 5	Weld both sides of the pipe inside and outside to adaptors (Note: confined space work)	Every repair (10)	R	R
5.1 6	For the duration of the project on site, the Contractor will be responsible for the following: <ul style="list-style-type: none"> <li>The supply of a mobile generator suitable for cutting and welding on site.</li> <li>Welding and cutting machines</li> <li>Lifting machine and lifting tackle in line with "Driven Machinery regulation"</li> <li>Drinking water and portable toilets</li> <li>Work would be done at an open veld</li> </ul>	Every repair (10)	R	R
5.17	Include third party for welding test and to issue a test report	Every repair (10)	R	R
5.18	Include Lifting Machinery and Tackles for site work	Every repair (10)	R	R
<b>TOTAL COSTS FOR FABRICATION AND SITE WELDING</b>			R	R



**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

**SD&L: ANNEXURE K**

	<b>Supplier Development Localisation and Industrialisation Undertaking</b> <b>Repair of KWS Steel pipeline for a period of Five years on as and when required basis</b>
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**SUPPLIER DEVELOPMENT AND LOCALISATION TARGETS**

**1. LOCAL CONTENT AND PRODUCTION (DESIGNATED SECTOR)**

Steel pipe is designated for local content and production with minimum local content threshold, as such only locally produced goods, services or works or locally manufactured goods with a stipulated minimum threshold for local production and content shall be considered as follows:

**Steel Pipe**

Designated commodity    Stipulated minimum threshold    Supplier Proposal

Steel Pipe    100%

Only tenderers who satisfy the stipulated minimum threshold of 100% for local production and content will be evaluated on functionality criteria

**2. OBJECTIVE CRITERIA – Local Content and Local-to-site beneficiation**

ERI is using this procurement opportunity to promote socio-economic transformation, empowerment of small enterprises, rural and township enterprises, designated groups, and promotion of local industrial development. It is against this background, therefore that ERI reserves the right to award the contract to a supplier that commits to Transformation - B-BBEE Improvement or Retention Plan, Skills Development, Job Creation and Socio-Economic Development in favour of beneficiaries residing within the Local Municipalities where the service will be consumed.

**2.1. Supplier Development & Localisation Matrix**

The SDL&I Matrix is not an evaluation criterion; however the successful supplier is under obligation to submit proposals before it is eligible for award in accordance with Section 2 (1) (f) of the Preferential Procurement Policy Framework Act (PPPFA).

**2.2. Transformation – BBBEE Retention or Improvement Plan**

Transformation remains an area of focus, where ERI continuously strives to align itself with national transformation imperatives to unlock growth, drive industrialisation, create employment and contribute to skills development. ERI encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Respondents will be allocated points in terms of a preference point system based on its B-BBEE scorecard, ERI also requests that Respondents submit B-BBEE improvement plan.

Respondents are therefore requested to indicate the extent to which they will maintain (only if the Respondent is a Level 1) or improve their B-BBEE status over the contract period. Respondents are requested to submit their B-BBEE Improvement Plan as an essential document with their bid.

**2.3. Skills Development**

Considering the overall budget, duration of the contract, opportunities for growth in this industry and the industries annual contribution to skills development levies, the successful supplier is obliged to develop skills through a three year bursary offer valued at R80 000.00 per student at a registered and accredited South African university.

The skills development initiative will not be part of the weighting criteria however as a condition for contract award, the successful supplier shall offer a three-year bursary valued at R80 000 per student to an assigned beneficiary at a registered and accredited South African university, for every R4.8 million invoiced of the cumulative contract amount.

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

 Eskom	<b>Supplier Development Localisation and Industrialisation Undertaking</b> <b>Repair of KWS Steel pipeline for a period of Five years on as and when required basis</b>
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The successful supplier shall offer a three-year university bursary in favour of a student within the province where the service will be consumed for every R4.8 million invoiced of the cumulative contract amount. The skills development commitment shall be carried out within one month of reaching or exceeding the R4.8 million threshold.

**3. Monitoring and reporting of SDL&I commitments**

- a. The successful supplier shall on a quarterly basis submit a report to ERI in accordance with the SDL&I Data Collection Template on its compliance with the SDL&I obligations.
- b. ERI shall review the quarterly report submitted by the successful supplier within 60 (sixty) days of receipt of the reports and notify the successful supplier in writing if its SDL&I obligations have not been met.
- c. Upon notification by ERI that the successful supplier has not met its SDL&I obligations, the successful supplier shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following quarter, failing which the SDL&I penalty clause shall be invoked.

**4. SDL&I Penalty**

- a. At the end of each quarter, ERI will apply a penalty of 2.5% of the invoiced amount excluding VAT for the successful supplier's failure to meet SDL&I obligations during that period.

Every contract shall be accompanied by the SDL&I implementation schedule which must be completed by the successful supplier and returned to the SDL&I representative for acceptance before contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on the successful supplier stated SDL&I commitments.

Signed  
Date

Name  
Position

Company Name

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.****CONFIDENTIALITY AGREEMENT**

This Confidentiality Agreement ('Agreement') is entered into between the Purchaser and the Supplier.

WHEREAS, the Purchaser and the Supplier (the Parties) desire to exchange certain confidential information; and consider further business dealings with each other.

WHEREAS, the parties desire to evidence their agreements governing the exchange of certain confidential information as set forth below.

Now therefore, for good and valuable consideration, including the mutual agreements hereinafter recited, the parties hereby agree as follows:

1. The parties contemplate an exchange, either orally, in writing or by inspection, of certain confidential proprietary information possessed or owned separately by them and not readily available or otherwise known to the public and which may be helpful in evaluating further business dealings. Such confidential information (the 'Subject Information') may include but not be limited to the parties' inventions, trade secrets, know-how, technical information on products and manufacturing processes, and information concerning their business assets, financial condition, operations, plans and prospects.
2. The purpose of the exchange of Subject Information is to enable the parties to evaluate the Subject information for the purpose only of considering further business dealings with each other.
3. The parties each agree that they shall maintain in secrecy in accordance with the terms of this Agreement all of the Subject Information each party receives (the 'Receiving Party') from the other party (the 'Proprietor') and shall not disclose or use other than for the purpose specified herein the Subject Information without the written consent of the Proprietor of the Subject Information. All Subject Information communicated from one party to the other shall be deemed to be proprietary and confidential to the Proprietor whether marked or identified as such or not.
4. The duty of care to safeguard Subject Information shall be the same as that which the parties each use to safeguard their own respective proprietary and confidential information.
5. The Receiving Party of Subject Information shall not be obligated to maintain Subject Information received from its Proprietor in secrecy or refrain from using it to the extent that any such information is or rightfully becomes publicly available information other than through a breach of this Agreement, or which the Receiving Party later obtains lawfully from anyone else who is not known by the Receiving Party to be obligated under any secrecy agreement with Proprietor to maintain the information in secrecy. The Receiving Party also shall not be obligated to maintain in secrecy any information it

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

receives from the Proprietor which it can demonstrate was already in its possession when the information was disclosed to the Receiving Party by the Proprietor.

6. The Receiving Party shall promptly return to its Proprietor any Subject Information in tangible form it has received from the Proprietor immediately upon the Proprietor's request, without retaining any copies, summaries, analyses or extracts thereof. All documents, memoranda, notes and other writings prepared by the parties, or their advisors, based on the Subject

Information of each other, shall be destroyed, and such destruction shall be certified in writing by an authorized officer supervising such destruction.

7. If a party, with the written consent of the Proprietor of Subject Information, discloses any Subject Information received from its Proprietor to any third party, it shall do so only under a secrecy agreement having a scope similar to and which is consistent with this Agreement, and the disclosing party shall be primarily responsible for any compromise of the secrecy of Subject Information by such third party
8. Each party agrees that it shall not, while and for so long as it is obligated to maintain Subject Information in secrecy, use for its own benefit, or for the benefit of others or exploit, commercialize, develop, test promote, sell, lease, market or otherwise dispose of any products or services using, incorporating or relying on Subject Information received from its Proprietor without the written consent of the Proprietor.
9. The obligations of the party receiving Subject Information pursuant to this Agreement shall be effective with respect of each item of Subject Information for a term of five (5) years from the date of submission of the Subject Information to the Receiving Party by its Proprietor unless the Proprietor agrees otherwise in writing.
10. For purposes of this Agreement, each party shall include (to the extent applicable) the officers, directors, employees, agents, representatives, attorneys, joint ventures, partnerships, affiliates, subsidiaries, and divisions of the party, and any other entity or entities which such party controls or which controls it, and, further, shall include any transferee, successor and assign of the assets of the party.
11. This Agreement shall be construed (both as to validity and performance) and enforced in accordance with, and governed by, the laws of Republic of South Africa.
12. Neither this Agreement nor the exchange of Subject Information between the parties shall create or be relied on by either party as a basis for creating any license between the parties under any patent, or other industrial or intellectual property rights of the Proprietor of the Subject Information, or any other license between the parties in the absence of any express written license agreement between them
13. The parties agree that no contract or agreement providing for a transaction shall be

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

deemed to exist between them unless and until a definitive agreement has been executed and delivered, the parties hereby waive, in advance, any claim (including, without limitation, breach of contract) in connection with a possible transaction with each other unless and until they shall have entered into a definitive agreement. The parties also agree that unless and until a definitive agreement between them has been executed and delivered, neither party has any legal obligation of any kind whatsoever with respect to any such transaction by virtue of this Agreement or any other written or oral expression with respect to such transaction, except, in the case of this Agreement, for the matters specifically agreed to herein. For purposes of this paragraph, the term 'definitive agreement'; does not include an executed letter of intent, memorandum of understanding.

IN WITNESS WHEREOF, and intending to be legally bound, this Agreement has been executed by the parties as of and effective from the date first written above.

ESKOM HOLDINGS SOC Ltd

CONTRACT NUMBER \_\_\_\_\_

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

**THE REPAIR OF KWS STEEL PIPE FOR A PERIOD OF FIVE YEARS ON AN AS AND WHEN REQUIRED BASIS.**

<b>Document reference</b>	<b>Title</b>	<b>No of pages</b>
	This cover page	1
C3.1	<i>Employer's Works Information</i>	
C3.2	<i>Contractor's Works Information</i>	
	Total number of pages	

## Annexure C: KWS Steel Pipeline Repairs SHE Specification

	<b>SHE SPECIFICATION</b>  KWS Steel Pipeline Repairs	<b>Template Identifier</b>	240-73416879	<b>Rev</b>	<b>2</b>
		<b>Document Identifier</b>	240-73416879	<b>Rev</b>	<b>X</b>
		<b>Effective Date</b>	<b>20 February 2016</b>		
		<b>Review Date</b>	<b>February 2023</b>		

Annotation: The information contained in this document is the minimum requirement; it can be updated, amended or removed to cover the SHE requirements related to the scope or the risks of the project. (This annotation shall be removed when drafting and finalising a specification)

Project Name: Steel Pipe Repair

Project Address: Komati Water Scheme Pipeline

Scope of the project: Provision for a qualified and competent service provider with relevant experience in Steel Pipeline Repairs for five years as and when required basis.

Eskom's Project Manager

Name: Lindiwe Nkonde

Signature:.....

Eskom's Safety Officer

Name: Chris Molekwa

Signature:.....

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1. Introduction

Eskom's responsibility and commitment is to ensure a safe working environment is in line with its Safety, Health, Environmental and Quality Policy, along with legislative obligations.

This SHE specification is Eskom the minimum requirements which are required to be met for the specific contract and for the duration of the contract period by contractors and where required, the delivery organisation.

The contractor is expected to develop a SHE plan which meets these requirements as well as all the relevant applicable legislation they conform to.

Eskom in no way assumes the contractor's legal responsibilities. The contractor is and remains accountable for the quality and the execution of his/her health and safety programme for his/her employees and appointed contractor employees.

This SHE specification reflects minimum requirements and should not be construed as all encompassing.

Note 1: All the requirements listed hereunder are in relation to the contract and do not supersede or replace any organizational SHE requirements.

Where requirements listed are already in place, then the organisational requirements must be taken cognisance of and listed in the respective SHE plans. If there are any additional Eskom and or legislative requirements listed in the SHE specification, then these must be addressed.

## 2. Supporting Clauses

### 2.1 Scope

This SHE specification lists the legislative and Eskom requirements and where applicable, any requirements pertaining to Local Authorities / Municipal by-laws / Environmental legislation that must be met by the contractor.

#### 2.1.1 Purpose

This document stipulates SHE requirements applicable to the issued scope of work for Repairs on pipe section with mild steel pipe and replace VJ coupling

#### 2.1.2 Applicability

This SHE specification is applicable to any contracting organisation who intends tendering for the contract.

### 2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

#### 2.2.1 Normative

- [1] Basic Conditions of Employment Act No 75 of 1997.
- [2] Occupational Health and Safety Act and Regulations No 85 of 1993.
- [3] National Environmental Management Act 107 of 1998.
- [4] National Road Traffic Act 93 of 1996.
- [5] 32-37 Eskom Substance Abuse Procedure.
- [6] 32-136 Contractor Health and Safety Requirements
- [7] 240-62196227 Life- saving Rules
- [8] 32-95 Environmental, Occupational Health and Safety Incident Management Procedure
- [9] 32-727 SHEQ Policy
- [10] 32- 418 Working at Heights Procedure
- [11] 240-62946386 Vehicle and Driver Safety Management Procedure
- [12] 32-520 Risk Assessment procedure
- [13] Plant Safety Regulations.
- [14] National Key Points Act 102 of 1980

## 2.2.2 Informative

- [1] Tobacco Products Control Act 83 of 1993 (Updated 2011.05.19)
- [2] SANS 1186 Symbolic Safety Signs
- [3] Constitution of the Republic of South Africa No 108 of 1996
- [4] DMN 34-110 Operating A Vehicle Mounted Crane
- [5] DMN 34-1981 Excavations.

## 2.3 Definitions

Definition      Explanation

Appointed contractor      Means a contractor appointed by the principal contractor

Baseline risk assessment      (32-520) baseline operational risks refer to the health and safety risks associated with all standard processes and routine activities in the business

Business unit (BU)      (32-296) means any defined unit within the Eskom environment, operating as a business under a particular cost-centre number. In the context of this document and in terms of health and safety, any reference to a BU includes a defined unit within any Eskom division and its subsidiaries

Client    (OHS Act) Eskom representative (Internal – Asset Owner), also referred to as the contract administrator/custodian or agent or project manager (as defined in the contract). He/she is the person responsible for ensuring that the works or services are executed in terms of the contract, as well as adherence to legislation pertaining to the contract.

Competent person    (OHS Act) means any person having the knowledge, training, experience, and qualifications, specific to the work or task being performed, provided that, where appropriate, qualifications and training are registered in terms of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995)

Contractor    (OHS Act) means an employer as defined in section 1 of the Act who performs contracted work and includes principal contractors

Construction work      Any work in connection with

a. the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure.

b. the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or the moving of earth, clearing of land, the making of excavation, piling or any similar civil engineering structure or type of work.

Consultant      means a person providing professional advice

Controlled disclosure      controlled disclosure to external parties (either enforced by law or discretionary)

Duty of care to the environment (32-136) anybody who causes or 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. If such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, such person must minimise and rectify such pollution or degradation of the environment

**Employee** (OHS Act) means, subject to the provisions of subsection (2), any person who is employed by or works for an employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person

**Employer** (OHS Act) means, subject to the provisions of subsection (2), any person who employs or provides work for any person and remunerates that person or expressly or tacitly undertakes to remunerate him/her, but excludes a TES (ex labour broker) as defined in section 1(1) of the Labour Relations Act 1956 (Act No. 28 of 1956)

**Environment** (32-94) means:

- a. the land, water, and atmosphere of the earth;
- b. micro-organisms and plant and animal life; and
- c. any part or combination of (a) and (b) and the interrelationships among and between them, and the physical, chemical, aesthetic, and cultural properties and conditions of the foregoing that influence human health and well-being

**Environmental Management plan** A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life-cycle of a project. This Environmental Management Plan should preferable form part of Eskom's Environmental Management System

**Eskom requirements** Eskom requirements flowing from directives, policies, standards, procedures, specifications, work instructions, guidelines, or manuals

**Fall protection plan** (OHS Act) means a documented plan of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods to be applied in order to eliminate the risk

**Hazard** (OHS Act) means a source of, or exposure to, danger

**Hazard identification** (OHS Act) means the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed

**Health and safety file** (OHS Act) means a file or other record in permanent form, containing the information required in relation to the contract.

**Health and safety plan** (OHS Act) means a document plan that addresses hazards identified and includes safe work procedures to mitigate, reduce, or control hazards identified

**Health and safety specification** (OHS Act) means a document specification of all health and safety requirements pertaining to associated to a contract, so as to ensure the health and safety of persons.

**Health and safety requirements** means comprehensive health and safety requirements for a contract, project, site, and scope of work. This specification is intended to ensure the health and safety of persons, both workers and the public, and the duty of care to the environment. The health and safety requirements must be specific to each contract, project, site, and scope of work

**Lifesaving Rules** (240-62196227) a rule that, if not adhered to, has the potential to cause serious harm to people

**Medical Certificate of fitness** (OHS Act) means a certificate valid for one year, issued by an occupational health practitioner, issued in terms of the regulations, whom shall be registered with the Health Professions Council of South Africa

**Medical surveillance** (OHS Act) means a planned programme or periodic examination (which may include clinical examinations, biological monitoring, or medical tests) of employees by an occupational health practitioner or, in prescribed cases, by an occupational medicine practitioner

**Method statement** (OHS Act) means a written document detailing the key activities to be performed in order to reduce, as reasonably as practicable, the hazards identified in any risk assessment

**Organisation** may be defined as a group of individuals (large or small) that is cooperating under the direction of executive leadership in accomplishment of certain common objects

**Pre-job meetings** (34-227) means a meeting that is held prior to the commencement of the day's work and that is attended by all the relevant employees associated with the work task

**Principal contractor** (In the text of this document) Means an employer, as defined in section 1 of the OHS Act, who intends to tender for or has signed a contract with Eskom for services rendered.

**Provincial director** (OHS Act) means the provincial director as defined in Regulation 1 of the General Administrative Regulations under the Act

**Responsible Manager** Is a Manager of a department, section or operating/business unit who has been appointed as part of the Eskom delegation of authority process with the aim to assist the applicable 16(2) assigned person in executing his/her duties in terms of the Occupational Health and Safety Act

**Risk assessment** (OHS Act) means a programme to determine any risk associated with any hazard at a construction site in order to identify the steps needed to be taken to remove, reduce, or control such hazard.

**Site**(34-228) means an Eskom department, unit, complex, building, specific project, work site, or the site where agents, clients, principal contractors, contractors, suppliers, vendors, and service providers provide a service to Eskom, directly or indirectly

**Service provider** any private person or legal entity that provides any service(s) to Eskom for compensation

**Subsidiary** (32-94) an enterprise controlled by another (called the parent) through the ownership of greater than 50% of its voting stock

**Supplier** (32-1034)means a natural or legal person who renders a service and may include the following current or potential supplier vendor, contractor, consultant

**Task** (34-227) a segment of work that requires a set of specific and distinct actions for its completion

**Toolbox talks** (34-227) where the team leader, after conducting pre-task planning, shares all the tasks at hand and discusses task allocation, the identified risks, and the control measures with all his/her team members on site before commencing a specific task and documenting the agreed strategy. (This shall be done to ensure common understanding of the tasks, risks, and control measures required.)

The Act (OHS Act) means the Occupational Health and Safety Act No. 85 of 1993, as amended, and the Regulations thereto

Visitor any person visiting a workplace with the knowledge of, or under the supervision of, an employer.

#### 2.4 Abbreviations

Abbreviation Description

AIA Approved Inspection Authority

BU Business Unit

CE Chief Executive

CNC (Eskom) Customer Network Centre

CR Construction Regulations of the OHS Act

COID Act Compensation for Occupational Injuries and Diseases Act

DMR Driven Machinery Regulations

DoL Department of Labour ( Inspection and Enforcement services – Provincial office)

EAP Employee Assistance Program

EP Emergency Preparedness

ERfW Environmental Regulations for Workplaces

GAR General Administrative Regulations

GSR General Safety Regulations

HCS Hazardous Chemical Substances

LDV Light Delivery Vehicle

LoG (COID) Letter of Good Standing

MSDS Material Safety Data Sheets

NEMA National Environmental Management Act

OHS Act Occupational Health and Safety Act and Regulations, 85 of 1993

SACPCMP South African Council for the Project & Construction Management Professions

SABS South African Bureau Standard

SANS South African National Standard

## 2.6 Roles and Responsibilities

### 2.6.1 Commitment

Visible commitment is essential to providing a safe work environment. Managers, supervisors and employees at all levels must demonstrate their commitment by being proactively involved in the day to day operations, in particular the Occupational Health and Safety aspects of any project / contract. Legislation requires that each employee must take reasonable care of themselves and their fellow workers, from management level down to the lowest employee level.

### 2.6.2 Appointed Principal contractors and Sub-contractors

Note 1: Most of the roles and responsibilities listed apply to both principal 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. The principal contractor must notify the provincial director of the Department of Labour in writing of all construction work if it falls within the scope of Regulation 4 of the Construction Regulations (if this has not been arranged and or done by the client/agent);
3. 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;
4. Shall keep a record of all employees including the appointed contractor employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the Eskom Project Manager.
5. 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.
6. Ensure that the minimum legislative, regulatory and Eskom SHE requirements are complied with on all work sites.
7. Give the Eskom project managers and line managers / responsible managers their full participation and cooperation.
8. Compile a SHE (health and safety) file where all relevant health and safety records must be kept for each work site.
9. The principal contractor must hand over a consolidated (to include any appointed contractors files) health and safety file to the Eskom project 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 appointed contractors, the agreement, and the type of work completed.
10. Contractors must hand over a consolidated (to include any appointed contractors files) health and safety file to the principal contractor 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 appointed contractors, the agreement, and the type of work completed.

11. The principal 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. Similarly, the principal contractor must provide the Eskom project manager with all the valid letters of good standing from their appointed contractors.
12. Contractors must provide the principal contractor 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.
13. 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.
14. 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 appointed contractors and their employees are conversant with all relevant work procedures and that they adhere to such procedures.
15. Co-ordinate the activities of all the appointed contractors in the interests of safety and health;
16. 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.
17. Stop his /her employees and any appointed contractors if project work is not in accordance with the health and safety plan or if such work poses a threat to the health and safety of persons or a risk of degradation to the environment.
18. Take reasonable steps to ensure cooperation between all their appointed contractors.
19. Only appoint contractors to do work, if satisfied that the contractor has the necessary competencies and resources to perform the work safely.
20. 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 appointed project manager or project supervisor during performance of the contracted work.

21. Ensure that the supervisor or manager do not supervise work on any site other than the site for which such supervisor has been appointed for.

Note 3: In determining the number of appointed 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 construction supervisor, the construction supervisor may supervise more than one site.

22. Appoint a full or part time safety officer or construction safety officer (registered with SACPCMP) in writing.
23. 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;

24. Follow a process of disciplinary action if any of their employees or their appointed contractor employees have transgressed any of the requirements of the health and safety specification, safety and health plans, site rules or any other requirements.
25. 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.
26. Before the commencement of any work, conduct risk assessments which shall include public safety. This should be done by a competent person appointed in writing with a view to identify hazardous and potentially hazardous work operations.
27. 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.
28. Take prime responsibility for all aspects of environmental management associated with the project activity for which they are responsible.
29. Provide any appointed contractor who is making a bid or is appointed to perform work on Eskom's behalf, with the relevant sections of the documented Eskom's SHE Specification.
30. Principal contractors are required to approve appointed contractor's health and safety plans if they meet all the requirements.
31. Must ensure that an organisation medical surveillance programme for the duration of the contract is in place and maintained.
32. 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.
33. 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.
34. Ensure, prior to the commencement of construction work, that all persons involved in the project work, as well as the appointed contractors, have received a health and safety induction training session. Similarly, ensure that all visitors to site undergo the site's induction training.
35. Ensure, prior to the commencement of construction work or contracted work, that all their employees involved in the project work, as well as the appointed contractors, have received task-specific training.
36. Issue risk-based personal protective equipment (PPE) as a measure of last resort to their employees, inspect such equipment regularly and ensure recipients of PPE are trained in the proper use, care and where necessary, the maintenance of PPE;

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

37. Erect their own site huts, temporary buildings, storage areas, toilets, fencing, and any other structure as may be required. Any such structures shall be positioned and erected in compliance with any instructions from the Eskom project manager and the relevant site safety and fire prevention requirements;
38. On completion of the work remove all structures erected by them, and where required by law rehabilitate the environment.

39. 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.
40. Respect the rights of land owners/lessors and the preservation of their registered activities;
41. Must have a substance abuse program which must be in line with the requirements of the OHS Act.
42. Ensure that no alcohol or other intoxicating substances are brought on to, or remains on the work sites.

Note 6: Eskom 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.

43. 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;
44. Ensure that all incidents are reported and investigated timeously by competent incident investigators.
45. Be involved in all of their appointed contractor's investigations.
46. Establish health and safety committees, hold such committee meetings on all sites, and ensure that appointed contractors participate in their health and safety meetings.
47. Chair their own health and safety committee meetings and record such meetings.
48. Appoint sufficient number of health and safety representatives in terms of legislative requirements and ensure that the appointed contractors appoint health and safety representatives for their work sites.
49. When appointing contractors, advise the project manager in writing timeously and obtain his/her approval prior to them commencing work.
50. Shall keep a record of all employees including the appointed contractor's employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the Eskom Project Manager.

### 2.6.3 Construction Managers/ Contract Managers

Note 1: No work may commence and or continue without the appointed supervisor or manager during the performance of the contracted work.

1. Not supervise construction work on any construction site other than the site they have been appointed to supervise;
2. Assist the contractor and/or the appointed safety officer in conducting site induction training for new staff and site visitors;
3. Instruct and train 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 Eskom SHE requirements are complied with on all work sites;
5. Stop any construction 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.
9. Be involved in all investigations that occur within their area of responsibility.
10. Carry out audits and or inspections on their contractors at least monthly and any appointed 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. Before the commencement of any work, where possible, assist in the conducting of risk assessments and ensure that appropriate mitigating measures have been considered and implemented.;
13. 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;
14. 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;
15. 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.
16. 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;
17. 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.
18. Ensure that they and their contractor managers give clear and unambiguous instructions for the project work, to the employees for whom they are responsible for.
19. Not victimise their employees by virtue of their employees 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).
20. 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.
21. Stop any employee or contractor from performing construction work which is not in accordance with the principal contractor's and or appointed contractors health and safety plan which poses a threat to the health and safety of persons.

#### 2.6.4 Contractor site supervisor or Contract Supervisor

Must:

1. Be competent to perform the required supervisory tasks;
2. Ensure their employees and all appointed contractors comply with the required statutory and Eskom project requirements;
3. Inspect all work done by the Contractors to ensure adherence to Eskom's standards and specifications
4. Conduct follow-up inspections to ensure findings are closed out and preventative action is in place.
5. Monitor contractors for adhere to statutory requirements and safety standards.
6. Monitor contractors overall SHE performance on site in order to achieve excellent results
7. 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.
8. Discuss all SHE related problems with the relevant contractor management timeously in the first instance and thereafter the Eskom project manager in the second instance relating to procedure requirements, non-conformance's identified, corrective actions, audits and inspection schedules.
9. Ensuring that quality records are maintained in accordance with legislative and Eskom requirements;
10. Continual liaison between the principal contractor, appointed contractors and employees.
11. Ensures that employees and appointed contractors are aware of latest standards, procedures, work instructions and safety regulations issued by Eskom:
12. Conduct site Inspections for compliance to SHE requirements and compiles the relevant inspection reports.
13. Submit the observation reports to the relevant management.
14. Have meaningful participation in the project statutory health and safety committee meetings.
15. Participate in all appointed contractor incident investigations.
16. Participate in the principal contractors emergency preparedness planning.
17. Ensure that their own employees and those of any appointed contractor are competent to perform the tasks assigned.
18. Issue site instructions on behalf of the principal contractor where and when the appointed contractors deviate from safety requirements.
19. Assist the principal contractor with the handing over process, in particular the SHE file and relevant documentation.

#### 2.6.5 Employees

Must:

1. Be responsible for their own safety and health and that of their co-workers;
2. Co-operate with their employer to meet all of the employer's as well as legislative and Eskom requirements;
3. Familiarise themselves with their responsibilities during induction and awareness training sessions, some of which are:
  - a. familiarising themselves with their workplaces and safety and health procedures;
  - b. working in a manner that does not endanger them or cause harm to others;
  - c. ensuring that the work area is kept tidy;
  - d. reporting all incidents and near misses;
  - e. protecting fellow workers against injury by performing job observations;
  - f. reporting unsafe acts and unsafe conditions;
  - g. reporting any situation that may become dangerous; and
  - h. carrying out lawful orders and obeying safety and health rules;
4. Who become aware of any person disregarding a safety notice, instruction, or regulation, immediately report this to the person concerned. If the person persists, stop that person from working, and report the matter to contractor management and/or Eskom's project manager or supervisor immediately.
5. Not damage, alter, remove, render ineffective, or interfere with anything that has been provided for the protection of the site or for the health and safety of persons this includes any guarding of machinery or equipment.
6. Obey any safety signs and adhere to any site demarcation at all times.
7. When entering or leaving the site, do so via the official designated access/departure routes. Where reflective jackets/bibs are required to be worn, wear them.
8. Be subjected to any disciplinary action, if having transgressed any of the requirements of the health and safety site rules, Eskom requirements, company requirements, or legislative requirements.
9. Avoid any act that may endanger their own health and safety or that of fellow employees, members of the public, or visitors who may be affected by their acts and/or omissions at work.
10. Have the right to obtain proper information from their employer regarding health and safety risks and measures related to the work processes.
11. Use facilities placed at their disposal and not misuse anything provided for their own protection or that of others.
12. Have the right to remove themselves from danger when they have good reason to believe that there is an imminent and serious danger to their health and safety and have the duty to inform their supervisor immediately of such danger.

13. Report to their supervisor (in the first instance), the principal contractor (in the second instance), and/or the Eskom project manager, any substandard acts and/or conditions that have come to their attention and that have not been rectified or acted on by their contractor management timeously.
14. Have the right and the duty at any workplace to participate in ensuring healthy and safe working conditions, to the extent of their control, over the equipment and methods of work adopted.
15. Maintain the surrounding area of the work site in a neat and tidy condition.
16. Have meaningful participation in regular health and safety meetings.
17. Have the right to refuse to perform or continue to perform any task/job on the grounds of health, safety, and environmental concerns.
18. When given instructions, understand the instructions and be permitted to clarify those instructions.

#### 2.6.6 Contractor Health and Safety officer

1. Promote a SHE culture within the organisations involved in the project / contract.
2. The contractor's safety and health officer shall assist in the control of all health and safety-related matters on the sites.
3. Be involved in the developing the project SHE plan and SHE policy.
4. Be in constant liaison and cooperate with Eskom's SHE professionals responsible for providing them with a health and safety service.
5. Ensure that this SHE specification is adhered to by his/her principal contractor and is submitted to any appointed contractors.
6. Conduct audits and inspections of all work sites for the duration of the project.
7. Be involved in the organisations incident investigations when required.
8. Participate in the organisation's statutory and non-statutory health and safety committees meetings.
9. Conduct organisational, site and visitor induction training.
10. Stop any employee or contractor from performing construction work which is not in accordance with the principal contractor's and or appointed contractors health and safety plan which poses a threat to the health and safety of persons.
11. 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.
12. Make themselves available and ensure co-operation of employees under their control to undergo breathalyser and drug testing while entering and/or being on any Eskom work site by Eskom.
13. Carry out audits and or inspections on their contractors at least monthly and any appointed contractors on instructions of their contractor;

14. Carry out frequent behaviour observations of employees under their control at least monthly and any appointed contractors on instructions of their contractor.

## 2.5 Related/Supporting Documents

Eskom OHS Act section 37 (2) agreement to be signed at procurement during the signing of the NEC contract, it is the responsibility of the project manager to ensure that the 37(2) agreement is signed and a copy be kept in the contractor file at procurement.

### 3. Specification

#### 3.1 Scope of work

The works includes decommissioning and removal of the existing middle tier fence (energised fence) inclusive of the existing civil works, to a designated area. The works also includes the design, manufacturing, procuring, supply, off-loading, installation, construction, quality control and assurance, testing, training, commissioning and handover of the electric fence for Vygeboom, Bosloop and Nooitgedacht pump station sites. The Contractor's design is performed by, or under the direction, control and supervision of an ECSA registered professional engineer. The electrical design shall be as per Eskom's standard 240-78980848 Specification for Non-Lethal Energized Perimeter Detection System (NLEPDS) for Protection of Eskom Installations and its Subsidiaries

A copy of the scope of works must be retained by the contractor.

Note: The contractor who will be awarded this contract will be known as the "principal contractor" and any contractor appointed by the principal contractor will be known as the "appointed contractor.

#### 3.2 Legal Compliance

##### 3.2.1 Section 37(2) (Legal) Agreement

A section 37(2) agreement must be signed between Eskom and the principal contractor at the time of awarding the contract. The principal contractor must ensure that a section 37(2) agreement is compiled between the principal contractor and all their appointed 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 contractor's SHE file.

##### 3.2.2 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. Eskom does not condone the use of child labour and therefore all effort must be exercised and child labour should not be used.

### 3.2.3 OHS Act

The principal contractor and appointed contractors shall have an up to date copy of the OHS Act and regulations which will be available to all employees.

### 3.2.4 Legislative compliance

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

The principal contractor and all appointed contractors will comply with all the legislation pertaining to this project being:

- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- Environment Conservation Act 1989 (Act 73 of 1989).
- National Water Act 1998 (Act 36 of 1998).
- Civil and Building Work Act.
- National Road Traffic Act 93 of 1996.
- Compensation for Occupational Injuries and Diseases Act.
- SANS Standards –Contractor shall use the relative standards applicable to the project.

### 3.3 Eskom Requirements

All contractors shall, before commencement of the project ensure that all their employees are familiar with the relevant Eskom SHE documentation that is applicable to contract services.

### 3.4 Construction Professional Registration

The principal contractor and all his/her appointed contractors shall be registered in their respective levels as professionals in terms of the requirements of the SACPCMP.

The SACPCMP web address is <http://www.sacpcmp.org.za>

- SHE professionals (which include Construction Safety Officers) are required to register as professionals with the SACPCMP.
- Construction Managers are required to register as professionals with the SACPCMP.

- Construction agents are required to register as a professional with the SACPCMP.

### 3.5 Notification of Construction Work

Unless otherwise contractually agreed upon, the principal contractor must notify the relevant provincial director of the Department of Labour of the intention of carrying out any construction work as defined in Construction Regulation 4 of the Act. The notification form of construction work is listed as an annexure to the construction regulations of the OHS Act. A copy of the notification letter sent to the DoL shall be forwarded to the Project Manager on the same day as sent to the DoL. A copy of the letter and their approval must be kept in the SHE file. When the DoL provide a letter of approval, a copy of the approval must be sent to the Eskom Project Manager and a copy filed in the SHE file.

### 3.6 SHE Policy

SHE policy is a statement of intent and a commitment by the organisation's CE and senior management in relation to the relevant SHE roles and responsibilities, the achievement of their strategic objectives, values of integrity, customer satisfaction, excellence, and innovation.

The principal contractor and all appointed contractors, if already not in place, will be required to compile an organisational SHE policy in line with their SHE responsibilities. The policy must be signed by the organisation's CE or the appointed assistant to the CE OHS Act Section 16(2). The policy must be displayed in a prominent place within the workplace. A copy of the policy must be filed in the contractor SHE files and attached as an annexure in the SHE Plan.

### 3.7 COID

The principal contractor and all his/her appointed contractors shall be registered with an appropriate employment compensation commissioner and have available a valid letter of good standing (LoG) from such commissioner. 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.

### 3.8 Costing for SHE within the Project

The costing for SHE must be itemised based on the overall scope of the project (i.e.) Training, provision of PPE, safety equipment purchases etc.

### 3.9 Statutory Appointments

For the duration of the contract, the principal contractor and all appointed 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 should include but not limited to the following:

- OHS Act Construction Regulation 8(1) - Construction Manager (Full time)|
- OHS Act Construction Regulation 8(7) – Assistant Construction Supervisor
- OHS Act Construction Regulation 8(5) – Construction Health and Safety Officer
- OHS Act General Administrative Regulation 9(2) – Incident Investigator

- OHS Act Section 19 (3) - Health and Safety Committee Member
- OHS Act Section 19(6)(a) – Co-opted Health and Safety Committee member
- OHS Act Hazardous Chemical Substances Regulation 3(3) Hazardous Chemical Substances Co-coordinator
- OHS Act, Section 17 – Health and Safety Representative.
- OHS Act General Machinery Regulation 2(1) – Supervision of Machinery
- OHS Act Construction Regulation 7(1)(V) Appointment of a Contractor (if appointing subcontractors)
- OHS Act Construction Regulation 9(1) - Person to Compile Risk Assessments
- OHS Act Construction Regulation 10(1) - Competent Person to Compile Fall Protection Plan
- OHS Act: Pressure Equipment Regulations 11 & 12 Portable Gas Container Inspector
- OHS Act: Construction Regulations 11(1) Person to Supervise Excavation Work
- OHS Act: Construction Regulations 16(1) Scaffolding Supervisor
- OHS Act: Construction Regulations 23(1)(d)(i) Construction Vehicle and Mobile Plant Operator
- OHS Act: Construction Regulations 24(c) Electrical Installations and Machinery on construction sites
- OHS Act: Construction Regulations 28(a) Stacking and Storage Supervisor on Construction sites
- OHS Act: Construction Regulations 29(h) Firefighting Equipment Inspector
- OHS Act General Safety Regulations 3(4) – First Aider/s

### 3.9.1 Non-statutory appointments

- Eskom requirement – Emergency Planning Co-coordinator
- Eskom requirement - Chairperson of Health and Safety Committee

### 3.10 Eskom Life-saving Rules

1. Eskom views health and safety in high esteem and encourages that any organisation who performs work for Eskom in Eskom adopt the same view.
2. Five 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 a Principal Contractor or appointed 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.
3. 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 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.

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.

**3.11 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", this means anyone entering the Eskom will be subjected to ad hoc alcohol testing.
5. Contractors are encouraged to compile their own manual and to carry out regular alcohol testing of their own employees. The legislative alcohol level is deemed to be zero.
6. Test records must be treated as "Confidential" and filed in the employees' personal file.

### 3.12 Contractor organisational Structure

#### 3.12.1 Principal Contractor Organogram

The principal contractor must provide an organisational organogram related to this contract, depicting all the levels of responsibility from the CE down to the supervisors responsible for the contract. List the relevant positions held, names of appointees and legal appointments.

The principal contractor must ensure that all appointed contractors comply with this requirement. The principal 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.

#### 3.12.2 Appointed Contractor/s Organogram

1. Appointed 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 principal 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.

### 3.13 Risk assessment (refer to 32-520)

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. A risk assessment is defined as an identification of the hazards present in an organisation and an estimate of the extent of the risks involved, taking into account whatever precautions are already being taken.

It is essentially a three stage process:

- identification of all hazards;
- evaluation of the risks;
- Measures to control the risks.

Risk assessments are required to be maintained. This means that significant changes to a process or activity, or any new process or activity should be subjected to a risk assessment and that if new hazards come to light during the work process, then these should also be subjected to risk assessments. Risk assessments for long term processes should be periodically reviewed and updated. Method statements or written safe work procedures are an effective method as information and record of the way jobs / tasks must be performed. Daily or issue based or task specific or on the job risk assessments must be conducted at the place where work is to be performed/ conducted to allow managers and employees to assess any inherent risks that could have been overlooked during the initial risk assessment or any changes that might have occurred in a period of absence. For example if a job / task is extended over a day or halted due to inclement weather.

Guidelines for actual steps involved in a job/task specific risk assessment are:

- Each activity is listed;
- Specific hazards are identified and listed against each activity;
- The magnitude of each risk is rated as Low. Medium or High;
- All known documentary and supervisory controls are listed. For instance: What safe work procedures exist for ladders;
- The relevance, effectiveness and sufficiency of these controls are assessed;
- In the event of insufficient or deficient controls for the particular activity, steps to be taken to rectify this shall be recorded, and safe working procedures drawn up;
- Persons responsible for implementing and supervising the task shall be identified, nominated and duly assigned;
- Persons responsible for monitoring the task and carrying out the planned job observation must be nominated;
- Completed risk assessment shall be handed to the Eskom project manager representative for comment and approval.

The relevant section of the risk assessment shall be issued with a Transmittal Note to the Supervisor nominated as the responsible person; and the names of workmen who have received instruction on the work content and the sequence of the activities listed in the risk assessment shall be recorded, and their competence established. This instruction shall be done through an interpreter if required and recorded on the Pre-Job Brief (Daily Safe Task Instructions), with reference to applicable Risk Assessments.

### 3.14 Safe work procedures / method statements

Method statements / written safe work procedure are control measures used to prevent an incident from occurring during the execution of the project. A written safe work procedure/ method statements provide guidance how to execute the task safely. A safe working procedure should be written when:-

- a. Designing a new job or task;
- b. Changing a job or task;
- c. Introducing new equipment or substances; and

The safe working procedure should identify:

- d. The supervisor for the task or job and the employees who will undertake the task;
- e. The tasks that are to be undertaken that pose risks;
- f. The equipment and substances that are used in these tasks;
- g. The control measures that have been built into these tasks;
- h. Any training or qualification needed to undertake the task;
- i. The personal protective equipment to be worn;

j. Actions to be undertaken to address safety issues that may arise while undertaking the task.

**3.15 Roof work (refer to 32- 418)**

Where roof work is to be performed, a risk assessment must be carried out prior to climbing on to the roof to determine the hazards (stability, suitability strength etc.), consequences of climbing and control measures that are required.

**3.16 Construction Sites**

**Note1:**No area is to be stripped of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. The contractor must ensure that operations are in compliance with statutory requirements at all times.

1. 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.
2. 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.
3. 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.
4. Appropriate portable extinguishers must be available on the construction site and in cases of hot work, be readily available at the location.
5. 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.
6. 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.

**3.17 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.

**3.18 Flammable and Combustible Liquids**

1. Proposals to store fuel on site must have written approval from the Eskom Project Manager. The volumes of fuel allowed to be stored will depend on site conditions and Statutory Regulations.
2. A maximum storage of 40 litres of fuel is allowed to be stored. Anything greater than 40 litres to be stored in a flammable/combustible liquid store.
3. Adequate numbers of dry chemical fire extinguishers, each with a minimum capacity of 4.5 kg, shall be provided, installed and maintained.
4. All fuel storage areas must comply with the following requirements: -
  - a. Storage should be well clear of buildings.
  - b. Storage areas must be kept free from all combustible materials.
  - c. All Safety signs must be prominently displayed i.e.
    - Flammable Liquid.
    - No Smoking.
    - No open flames.
  - d. Adequate firefighting equipment must be available.
5. Diesel tanks are to be installed in a bunded area; bunded area must be able to contain 110% of tank capacity.
6. Bunded area shall be of a concrete or steel construction and lined with a leak proof sealing material.
7. Bunded area shall have a drain valve.
8. No other material/equipment shall be stored in the bunded area.

### 3.18.1 Refuelling at the construction site

With the exception of construction vehicles and mobile equipment, before a machine is refuelled, the motor must be stopped. Refuelling shall take place at designated safe areas and appropriate warning signs installed. Suitable drip trays must be used to prevent spillage at the filling nozzle.

### 3.19 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. Principal Contractor must ensure that his /her employees and appointed 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 Principal Contractor and appointed contractor shall ensure that alternative arrangements be made for incidents occurring after working hours.

### 3.19.1 Boxes and equipment

The following is a list of minimum contents of a first aid box:

- Item 1: Wound cleaner/antiseptic (100ml).
- Item 2: Swabs for cleaning wounds.
- Item 3: Cotton wool for padding (100 g).
- Item 4: Sterile gauze (minimum quantity 10).
- Item 5: 1 Pair of forceps (for splinters).
- Item 6: 1 Pair of scissors (minimum size 100 mm).
- Item 7: 1 Set of safety pins.
- Item 8: 4 Triangular bandages.
- Item 9: 4 Roller bandages (75 mm X 5 m).
- Item 10: 4 Roller bandages (100 mm X 5 m).
- Item 11: 1 Roll of elastic adhesive (25 mm X 3 m).
- Item 12: 1 Non-allergenic adhesive strip (25 mm X 3 m).
- Item 13: 1 Packet of adhesive dressing strips (minimum quantity, 10 assorted sizes).
- Item 14: 4 First aid dressings (75 mm X 100 mm).
- Item 15: 4 First aid dressings (150 mm x 200 mm).

- Item 16: 2 Straight splints.
- Item 17: 2 Pairs large and 2 pairs medium disposable latex gloves.
- Item 18: 2 CPR mouth pieces or similar devices.

A content check list must be available with all boxes and boxes shall be checked on a regular basis, kept clean and dust free.

### 3.20 SHE Communication Systems

Principal Contractor/s and their appointed contractors must develop a communication strategy 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. Below is a brief on how communication should take place. 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.

#### 3.20.1 Statutory Health and Safety Committees

1. The principal contractor shall establish statutory health and safety committee in terms of Section 19 of the OHS Act, Act. Similarly, appointed contractors shall establish their own statutory health and safety committee.
2. All appointed contractors shall be members of the principal 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. Listed below is a preferred agenda.
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 appointed members of the committee shall attend the meeting.
7. Statutory health and safety committees may make recommendations to the principal 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 principal contractor and appointed 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 appointed by the contractor. The appointed chairperson must be competent to chair meetings and be able to make informed decisions.

### 3.20.2 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

### 3.20.3 Agenda

1. The following serves as the guideline for the SHE Committee meeting agenda.
  - List of agenda items:
  - Matters arising from previous minutes
  - Matters arising from Contractor's SHE meetings.
  - Audit results and feedback
  - Review Health and Safety Representative Inspection Reports
  - Review
  - o Incident investigation reports
  - o Non-Conformances
  - o Announcements (near miss/injury/damage)
  - o Follow up on recommendations made by the employer in incident investigation reports
  - Accident Prevention – Safety Promotion
  - o Planned Job Observations
  - o SHE Training
  - o Protective clothing and equipment
  - o Incident Announcements / Recall

- Forthcoming High hazard activities.
- Non-conformances.
- Housekeeping.
- Work permits.
- Work procedures.
- Hazardous materials / substances.
- Fire Prevention
- Occupational Hygiene Assessments, Health Risks and Actions
- Security
- Construction vehicles and mobile equipment
- Rules, Instructions
- Public Safety
- Environmental Management
- Emergency Preparedness
- Statistics report
- Closure

#### 3.20.4 Minutes and action items for all health and safety committee meetings

1. Minutes and record of action items shall be kept of all health and safety committee meetings.
2. Action column with target dates and responsible person shall be clearly visible on the minutes and shall be completed during the meeting.
3. Statutory health and safety committee meeting minutes and record of action items shall be kept for the duration of the project or a minimum period of three years.
4. Non-statutory health and safety committee meeting minutes shall be kept for the duration of the project or a minimum period of 12 months.
5. All other meeting minutes where SHE is on the agenda, shall be kept for a minimum period of 12 months.
6. The original copy of the minutes and record of the action items must be signed by the chairperson.
7. The relevant project manager and principal contractor shall endorse the relevant minutes with his/her recommendations and return the minutes to the relevant contractors chairperson within 14 calendar days of the meeting.

### 3.20.5 Tool box talks / Daily team talks / pre job meetings

1. A meeting must be held prior to the commencement of the day's work with all relevant personnel associated with the work task in attendance. The job, relevant procedures, associated hazards, safety measures, i.e. the task risk assessments shall be discussed. Each employee who attends the briefing shall sign an attendance list of that pre-job brief form undertaking that they have an understanding of the tasks, risks and control measures required.
2. Where possible, tool box talks can be included in the pre-job brief meetings. If this does not occur, then weekly tool box talks must be conducted. The toolbox talk topics will be based on SHE issues pertaining to the construction site and or the project. The topic contents shall be in writing. Attendance registers with the topic listed shall be kept.

### 3.21 SHE Training

1. The principal 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, appointed contractor must provide the same requirements when bidding with the principal contractor.
2. The scope of training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that the principal contractor and appointed contractors must have the appropriate qualifications, certificates and employees should always be under competent supervision.
3. Where legislative and Eskom 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.

#### 3.21.1 Induction training

1. The principal contractor shall ensure that all his / her employees, appointed contractors and their employees have undergone the Eskom Safety Contractor Management induction training prior to commencing work on site.
2. Attendance registers must be completed of any induction training given, which must indicate that they have received and understood the induction training.
3. 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.
4. All employees and visitors on site shall carry the proof of induction training.

#### 3.21.2 Site specific induction training

The principal contractor shall ensure that all his / her employees and appointed contractor employees undergo site specific work induction with regard to the approved project SHE plan, general hazards prevalent

on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction training should also include identification of sensitive features such as wetlands/vlei areas, red data species, graves, etc.

### 3.21.3 Visitors to site induction

1. Visitors to the site shall be required to undergo and comply with the principal 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.

### 3.21.4 General training

The principal contractor will be required to ensure that before an employee commences work on the project, the respective supervisor informs the employee of his scope of authority, the hazards associated with work as well as the control measures to be taken. This will include man-job specifications, the discussion of any task procedures or hazardous operational procedures to be performed by the employee. The Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

## 3.22 Contractor Site Establishment

1. Principal contractor's site facilities should be managed at all times.
2. Prior to establishing a project site, a site plan is required to be drawn listing position of all buildings, amenities, storage and stacking areas. The appropriate colour coding and demarcation of storage and stacking areas must be carried out.
3. Where, working in the field and material is stored at the work sites, then proper stacking and storage shall be carried out.
4. When compiling the site plan, cognisance must be taken to the establishment of the site camp, ablution facilities and dining area in relation to one another and away from stacking and storage areas.

### 3.22.1 Site roads

1. When planning, sufficient areas must be allocated for parking of construction vehicles and mobile equipment's as well as roadways for ease of manoeuvrability of these vehicles.
2. Sufficient width roads to be provided and adequate space is to be allowed for large vehicles traversing the sites.

### 3.22.2 Construction vehicle safety

1. 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.

2. No drivers or operators may text, talk on cell phones or two way radios whilst driving, unless a hands free kit is used.
3. All drivers of construction vehicles are to have valid medical fitness certificates.
4. Each Project site that is enclosed by demarcation will have system/ process to manage vehicle access to site.
5. Contractor must maintain their vehicles in a roadworthy condition and a vehicle license must be valid at all times.
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. Contractor vehicles can be subject to inspections by the Client/Agent's representative. Vehicles which are not roadworthy will not be permitted to be used on the project.
8. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them. 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.

### 3.23 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 principal contractor in the first instance and the Eskom project/site manager in the second instance.
8. The Eskom Project/Site Manager has the right to instruct the principal contractor and appointed 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 principal contractor.

9. The principal contractor shall carry out regular safety/housekeeping inspections (at least weekly) to ensure maintenance of satisfactory standards. The principal contractor shall document the results of each inspection and shall maintain records for viewing.

### 3.23.1 Stacking

1. Before stacking any material, the contractors or their employees must consult the contract manager for authorisation to use such an area for stacking purposes. This is to prevent haphazard arrangements.
2. Adequate care must be taken by the contractor to ensure that storage and stacking is carried out correctly and safely.
3. Correct shelf stacking must be carried out, heavy and bulky on the bottom, light and small on top.

### 3.24 Workplace Signage and Colour Coding

1. Symbolic safety signage shall be displayed where it is required by legislation.
2. All symbolic safety signage shall conform to the requirements of SANS standard 1186.
3. Signs shall be positioned to be seen from most positions within the work sites / areas.
4. All signage must be clear at all times and be replaced timeously when worn out.
5. Contractors establishing sites must erect a company sign at their site offices to reflect the name and contact details of the: Construction Supervisor; Health and Safety Manager/Practitioner; First Aider; Health and Safety Representative and Evacuation warden.
6. The location of every first aid box; fire extinguisher and emergency exit is to be clearly indicated by means of a sign.
7. When using, an explosive power tool the appropriate signage shall be erected, warning people of its use.
8. 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.
9. The meanings of the appropriate symbolic signage must be discussed during induction training and toolbox talks.
10. Where possible, within workshops, work areas and established premises, the appropriate sign indicating the meaning of symbolic safety signs must be displayed.

### 3.25 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. The equipment should be numbered or tagged so that it can be properly monitored and inspected.
3. 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.

4. All fuel driven equipment must be properly maintained in accordance with the manufacturer's recommendations and legal requirements.
5. Eskom reserves the right to inspect tools or items of equipment brought to site by contractors for use on this project.
6. Should Eskom 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 Eskom 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.

Note: In such cases, the contractor shall not be entitled to extra payments or extensions of time in respect of delay caused by Eskom's instructions.

7. 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.
8. 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.

#### 3.25.1 Hand tools

1. All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the construction 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. All files and similar tools must be fitted with handles.
4. No make shift tools are permissible on the project.

#### 3.26 Ladders

1. Ladders used shall conform to the requirements of GSR 13A and used in terms of GSR 6.
2. The appropriate head protection, with chin strap shall be worn by employees working from a ladder or with climbing irons.
3. The ladder wheels, brakes and platform must be in good condition.
4. All metal parts to be in good condition, no cracks.
5. Non-slip devices must be in good condition and no paint to be on wooden ladders
6. Climbing irons are permitted to be used in place of ladders on condition that the requirements of GSR 6 are not compromised and from an electrical point of view not damage any cabling. The working at heights risk assessment must indicate the use of climbing irons.
7. Employees using climbing irons shall be suitably trained in the use, care and maintenance of such climbing irons.
8. When using climbing irons, the appropriate rope grab fall prevention system shall be used.

9. The correct fall protection equipment shall be worn and used whilst climbing up, working from and climbing down ladders.
10. The appropriate head protection, with chin strap shall be worn by employees working from a ladder or with climbing irons.
11. A detailed inspection of all ladders shall be conducted monthly by a competent person and every time prior to climbing by employees using such ladders. The inspection check lists must be filed in the site SHE files.

### 3.27 Scaffolding

1. Scaffolding use shall conform to the requirements of CR 14, Eskom procedure 32-418 and used in terms of GSR 6.
2. The requirements for using a scaffold platform shall be determined by the work at heights risk assessment.
3. All scaffolding that will be used shall conform to the SANS standard 10085 and the requirements of CR 16 shall be carried out.
4. Scaffolding shall be erected and inspected by the competent personnel.
5. The appropriate training for scaffold users shall be conducted prior to climbing on to the scaffold.
6. The correct fall protection equipment shall be worn and used whilst climbing up, working from and climbing down the scaffolds.
7. A detailed inspection of all scaffolding shall be conducted monthly by a competent person and every time prior to climbing by employees using such scaffolding. The inspection check lists must be filed in the site SHE files.

### 3.28 Auditing

#### 3.28.1 Approval and compliance of principal contractor SHE plan

The Contractor's SHE Plan will be audited against compliance checklist so as to verify compliance to the requirements of the Eskom SHE specifications. Once there is compliance only then will the principal contractors SHE plan be approved by the project manager or an appointed Eskom contract custodian. The implementation of the SHE Plan shall be assessed / audited by Eskom personnel on a regular basis. This will include physical conditions evaluation.

#### 3.28.2 Eskom SHE audits

Eskom shall evaluate all contractors' SHE performance on an ongoing basis against the legal, Eskom requirements, SHE specification and the contractors SHE plans.

Note: Eskom reserves the right to conduct unannounced audits on contractors

There will be monthly audits conducted by Eskom on the principal contractor/s and/or appointed contractors. These audits shall be attended by the contractor's site manager or his representative.

If there are any findings / non-compliance identified as serious in these audits, an activity will be stopped for that specific Principal Contractor and appointed contractor. Refer to section on "Work Stoppage" in this SHE Specification.

### 3.28.1 Contractor audits

Principal Contractors are required to conduct internal audits on both their employees and their appointed 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 Eskom project manager within one week after completion of the audit. Where appointed contractors are audited by the principal contractor a copy of the audit report shall be submitted to the appointed contractor within 7 days of the audit.

### 3.29 Smoking

The national smoking policy must be observed and smoking is permitted in designated areas only (Eskom Smoking Procedure 32-36).

### 3.30 Cellular Phones

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

### 3.31 Occupational Health, Hygiene and Rehabilitation

All contractors are required to develop an Occupational Health, Hygiene and Rehabilitation program. The program is intended to ensure that the risks to health are identified and controlled.

#### 3.31.1 Medicals

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

1. Principal contractors must ensure that their employees and their appointed 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 Principal Contractor must ensure that his / her employees and appointed contractor employees have undergone pre-entry medical examination before starting work on the contract.
5. The principal contractor shall provide a documented process for managing those employees who are issued with a conditional certificate of fitness.

### 3.32 Working at Heights

#### 3.32.1 General Requirements

Wherever reasonably practicable, preference is given to the performance of work at ground level as opposed to the elevated position. Where work in an elevated position is necessary, preference is given to fall prevention measures such as, but not limited to, effective barricading and the use of work platforms. 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. All appointments for the fall protection plan developer and implementer are in place.
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. A fall rescue plan, along with necessary equipment and trained rescuers, is in place.
5. Appropriate training, as determined by the risk assessment, has been provided.
6. Appropriate height safety equipment and personal protective equipment have been issued to the individual.
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.

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.

### 3.33 Risk Assessments

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. A risk assessment is defined as an identification of the hazards present in an organisation and an estimate of the extent of the risks involved, taking into account whatever precautions are already being taken. It is essentially a three stage process:

- identification of all hazards;
- evaluation of the risks;
- Measures to control the risks.

Risk assessments are required to be maintained. This means that significant changes to a process or activity, or any new process or activity should be subjected to a risk assessment and that if new hazards come to light during the work process, then these should also be subjected to risk assessments. Risk

assessments for long term processes should be periodically reviewed and updated. Method statements or written safe work procedures are an effective method as information and record of the way jobs / tasks must be performed. Daily or issue based or task specific or on the job risk assessments must be conducted at the place where work is to be performed/ conducted to allow managers and employees to assess any inherent risks that could have been overlooked during the initial risk assessment or any changes that might have occurred in a period of absence. For example if a job / task is extended over a day or halted due to inclement weather.

### 3.34 Safe Work Procedures and Practices / Safe Operating

There must be written safe work procedures for all activities, the safe work procedures must be aligned with the risk assessments.

### 3.35 Personal Protective Equipment Requirements

1. The Principal contractor must provide a detailed programme that includes the issuing, maintenance and replacement of PPE for all his employees and appointed 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. Where there are unusual instances where particular activities require additional type of PPE, then a risk assessment must be conducted where such PPE requirements will be identified and the issuing be carried out.
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.

### 3.36 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.

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.

### 3.37 Emergency Management

The art of emergency preparedness and response is to minimise the effects of any emergency and to restore normal activities as soon as practical. The contractor must familiarise themselves with the Eskom 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.

### 3.38 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. Principal 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, appointed 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 Eskom 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 Eskom requirements.

### 3.39 SHE File

1. A SHE file means a file or other record in permanent form, containing the information about the safety and health management system during construction and all information relating to the post-construction phase after handover to the client, so that the client can maintain the works in a healthy and safe way.
2. All contractors are required to keep a SHE file on every project site. If there is more than one site per project, a file per site shall be kept at that site. Contractors may keep additional files at their head office as additional records. The SHE file shall be maintained by all the contractors on their construction sites and shall be available on request for audit and inspection purposes.
3. The SHE file shall consist of the requirements in terms of the project's safety specification, the contractor's safety and health plans.
4. The sequence of filing the documentation must be kept in the same sequence as listed in this SHE specification and the SHE plan.
5. Each record shall be separated by partitions to afford easy identification and access. Each partition must be labelled.
6. On completion of the construction work/project, the principal contractor must hand over a consolidated health and safety file to the project manager. The principal contractor must also hand over all drawings, designs, lists of materials used, and other applicable information about the completed structure, as well as the list of subcontractors, the agreement, and the type of work completed.
7. In case where the project is extended, should the documentation in the SHE files become cumbersome, the older documentation must be archived in boxes which shall be correctly labelled and be available for auditing purposes. The archived documentation must be handed over at the completion of the project.

### 3.40 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.

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.

2. 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 Eskom where the contractor has not met the requirements defined legally or contractually.
3. Where stoppages are carried out, the required non-conformance report shall be raised.
4. All work stoppages ideally should be investigated and documented by contract custodians.

#### 3.41 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.

##### 3.41.1 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 Eskom 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.

##### 3.41.2 Night work

When night work is to be performed; contractors shall provide sufficient lighting to enable the entire work site to be illuminated to a degree that employees will not work in dark (un-illuminated) or dimly lit areas. Care must be exercised as not to use few lights with high light intensives as this will cause night blindness.

If work is continuing from day light into night, at dusk, a tool box talk must be held where all employees will be advised of the hazards of night work and the extra precautions which require to be taken, i.e. poor housekeeping, stepping on uneven ground, stepping into holes etc.

##### 3.41.3 Overtime

When overtime is required to be performed, the appointed contractors shall inform the principal contractor of such action. The principal contractor shall inform the Eskom 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.

#### 3.42 Omissions from Safety and Health Requirements Specification

By drawing up this SHE specification Eskom 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 Eskom 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 Eskom of such issues when signing the contract.

#### 3.43 Contract Sign-Off

On completion of the project, all appointed contractors shall close out their project documentation; SHE files and forwards such to the principal contractor. The principal contractor shall likewise close out his/her project documentation and SHE files and forward such to the Eskom project manager.

