



NEC3 Engineering & Construction Contract

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

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

for High level dam cleaning, repair of Dam 3 wall and
construction of access ramps

Contents:	No of pages
Part C1 Agreements & Contract Data	[•]
Part C2 Pricing Data	[•]
Part C3 Scope of Work	[•]
Part C4 Site Information	[•]

CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

Contents:	No of pages
C1.1 Form of Offer and Acceptance	[•]
[to be inserted from Returnable Documents at award stage]	
C1.2a Contract Data provided by the <i>Employer</i>	[•]
C1.2b Contract Data provided by the <i>Contractor</i>	[•]
[to be inserted from Returnable Documents at award stage]	
C1.3 Proforma Guarantees	[•]

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:

High level dam cleaning, repair of Dam 3 wall and construction of access ramps

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

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

Options A B, C or D	The offered total of the Prices exclusive of VAT is	R [●]
Option E or F	The first forecast of the total Defined Cost plus the Fee exclusive of VAT is	R [●]
	Sub total	R [●]
	Value Added Tax @ 15% is	R [●]
	The offered total of the amount due inclusive of VAT is ¹	R [●]
	(in words) [●]	

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

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

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

Acceptance

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

The terms of the contract, are contained in:

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

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

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

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

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

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

.....
(Insert name and address of organisation)

Name &
signature of
witness

Date

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

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

Note:

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

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

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

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

For the tenderer:

For the Employer

Signature _____ Name _____ Capacity _____ On behalf of _____ _____ Name & signature of witness _____ _____ Date _____	_____ _____ _____ _____ _____ _____ _____ _____
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C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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

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

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	W1: Dispute resolution procedure
		X1: Price adjustment for inflation
		X2 Changes in the law
		X7: Delay damages
		X16: Retention
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The <i>Project Manager</i> is: (Name)	Mlungisi Mfeka
	Address	Duvha Power Station PO Box 2199 Witbank 1035
	Tel	013 691 6520

	Fax	
	e-mail	Mfekaml@eskom.co.za
10.1	The <i>Supervisor</i> is: (Name)	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
11.2(13)	The <i>works</i> are	High level dam cleaning, repair of Dam 3 wall and construction of access ramps
11.2(14)	The following matters will be included in the Risk Register	<ol style="list-style-type: none"> 1. Dust Inhalation 2. Slip, Trip & Fall 3. Falling Objects 4. Electric Shock 5. Permit to Work 6. Working at heights 7. Rigging 8. Quality 9. Time 10. Covid 11. Snake bites
11.2(15)	The <i>boundaries of the site</i> are	Duvha high level dam
11.2(16)	The Site Information is in	Part 4: Site Information
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	5 working days
2	The Contractor's main responsibilities	Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.
3	Time	
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	28 February 2026
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met key date

		1	Kick off meeting	5 days after contract awarded.
		2	Programme submission	14 days after contract award
		3	Safety file approval	14 days after kick-off meeting
		4	QCP, & Method Statements	14 days after programme submission
		5	Plant Isolation	As per the accepted program and approved milestone
		7	Execution as per the scope.	As per the accepted program and approved milestone
		8	Program revision	A revised program required every 4 th week of the month.
		9	Hand over	As per the accepted program and approved milestone

30.1	The <i>access dates</i> are:	Part of the Site	Date
		1	High level dam
			After safety file approval
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.	
31.2	The <i>starting date</i> is	01 August 2024	
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 weeks.	
35.1	The <i>Employer</i> is not willing to take over the works before the Completion Date.		

4 Testing and Defects

42.2	The <i>defects date</i> is	52 weeks after Completion of the whole of the works.
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43.2 The *defect correction period* is **2 weeks from day of defect notification**



5 Payment

50.1 The *assessment interval* is **25th day of each successive month.**

51.1 The *currency of this contract* is the **South African Rand.**

51.2 The period within which payments are made is **4 weeks.**

51.4 The *interest rate* is **the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and**

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

6 Compensation events

60.1(13) The place where weather is to be recorded is:

Duvha Power Station

The *weather measurements* to be recorded for each calendar month are,

the cumulative rainfall (mm)

the number of days with rainfall more than 10 mm

the number of days with minimum air temperature less than 0 degrees Celsius

the number of days with snow lying at 09:00 hours South African Time

and these measurements:

The *weather measurements* are supplied by

The Contractor

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

Witbank area

and which are available from:

the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer*

60.1(13)	Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	As stated in Annexure A to this Contract Data provided by the <i>Employer</i>. Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.
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	<ol style="list-style-type: none"> 1. Underground cables and piping not detected during final land survey 2. Loss of material during execution e.g. cables 3. Damage of material during execution e.g. veld fire.
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	Data for main Option clause	
B	Priced contract with bill of quantities	
60.6	The <i>method of measurement</i> is	[•] published by [•] and amended as stated in Part C2.1, Pricing Assumptions.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	[•]

Tel No. [•]
Fax No. [•]
e-mail [•]

W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	arbitration.
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	[•] South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
	- if the arbitration procedure does not state who selects an arbitrator, is	

12 Data for secondary Option clauses

X1	Price adjustment for inflation			
X1.1(a)	The <i>base date</i> for indices is	30 August 2024		
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	proportion	linked to index for	Index prepared by
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		[•]	non-adjustable	
	Total	1.00		
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X7	Delay damages (but not if Option X5 is also used)	Maximum 10% of Contract value		
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	Execution - R 10 000 per day up to a limit		

		of 10% of the contract value (as per accepted programme)
X16	Retention (not used with Option F)	
X16.1	The <i>retention free amount</i> is	0
	The <i>retention percentage</i> is	10 % of Contract value
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	the amount of the deductibles relevant to the event
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	the total of the Prices other than for the additional excluded matters. The <i>Contractor's</i> total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for <ul style="list-style-type: none"> • Defects due to his design which arise before the Defects Certificate is issued, • Defects due to manufacture and fabrication outside the Site, • loss of or damage to property (other than the <i>works</i>, Plant and Materials), • death of or injury to a person and • infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	(i) 52 weeks after the <i>defects date</i> for latent Defects and (ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter. A latent Defect is a Defect which would not

have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period. If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.

Z The Additional conditions of contract are

Z1 to Z15 always apply.

Z1 Cession delegation and assignment

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

Z2 Joint ventures

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

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

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

Z4 Confidentiality

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

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

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

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

Z8 Notifying compensation events

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

Z9 Employer's limitation of liability

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 The *Contractor's* entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

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

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

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

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

Z12 Ethics

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

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,

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

- Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
- Z12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.
- Z12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

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

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
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Loss of or damage to the works, Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> 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's</i> insurance The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> insurance <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 of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 Nuclear Liability

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

Z15 Asbestos

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

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

Containing Material, Equipment and Articles.

SANAS means the South African National Accreditation System.

TWA means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

- Z15.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.
- Z15.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z15.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z15.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Annexure A: One-in-ten-year-return weather data obtained from SA Weather Bureau for [weather station]

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

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

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



C1.2 Contract Data

Part two - Data provided by the *Contractor*

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

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

Notes to a tendering contractor:

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

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

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

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

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .	
11.2(3)	The <i>completion date</i> for the whole of the works is		
11.2(14)	The following matters will be included in the Risk Register		
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:		
31.1	The programme identified in the Contract Data is		
A	Priced contract with activity schedule		
11.2(20)	The <i>activity schedule</i> is in		
11.2(30)	The tendered total of the Prices is	(in figures)	(in words), excluding VAT
B	Priced contract with bill of quantities		
11.2(21)	The <i>bill of quantities</i> is in		
11.2(31)	The tendered total of the Prices is	(in figures)	(in words), excluding VAT
C	Target contract with activity schedule		
11.2(20)	The <i>activity schedule</i> is in		
11.2(30)	The tendered total of the Prices is	(in figures)	(in words), excluding VAT
D	Target contract with bill of quantities		
11.2(21)	The <i>bill of quantities</i> is in		
11.2(31)	The tendered total of the Prices is	(in figures)	(in words), excluding VAT
F	Management contract		
20.2	Work which the <i>Contractor's</i> will do himself is	Activity	price (lump sum or rate)
	Data for Schedules of Cost Components	Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).	

A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components		
B	Priced contract with bill of quantities	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert another schedule if foreign resources may also be used	Category of employee		Hourly rate
62 in SSCC	The percentage for design overheads is	%		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			
	If Option C, D or E is used	Data for Schedule of Cost Components		
23 in SCC	The listed items of Equipment purchased for work on this contract, with an on cost charge, are:	Equipment	Time related charge	Per (time period)
24 in SCC	The rates of special Equipment are:	Equipment	Size or capacity	Rate

44 in SCC	The percentage for Working Areas overheads is:	:	%
51 in SCC	The hourly rates for Defined Cost of manufacture or fabrication outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates Please insert another schedule if foreign resources may also be used	Category of employee	Hourly rate
52 in SCC	The percentage for manufacture and fabrication overheads is		%
	If Option C, D, or E is used	Data for both schedules of cost components	
61 in SCC & SCCC	The hourly rates for Defined Cost of design outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert another schedule if foreign resources may also be used	Category of employee	Hourly rate
62 in SCC & SCCC	The percentage for design overheads is		%
63 in SCC & SCCC	The categories of design employees whose travelling expenses to and from the Working Areas are included as a cost of design of the <i>works</i> and Equipment done outside the Working Areas are:		
	If Option C, D or E is used	Data for the Shorter Schedule of Cost Components	
41 in SCCC	The percentage for people overheads is:		%
21 in SCCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is		%

22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate

PART 2: PRICING DATA

ECC3 Option B

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	
C2.2	The <i>bill of quantities</i>	

C2.1 Pricing assumptions: Option B

How work is priced and assessed for payment

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

Identified and defined terms	11	
	11.2	(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
		(28) The Price for Work Done to Date is the total of
		<ul style="list-style-type: none">• the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate and• a proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> has completed.
		Completed work is work without Defects which would either delay or be covered by immediately following work.
		(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

There is no general provision in Option B for payment for materials on Site before incorporation into the *works*. If secondary Option X14 Advanced payment has not been used then the tendering contractor may obtain the same effect by inserting appropriate items in the method related charges where the *method of measurement* allows, or alternatively making allowance in the rates of the *bill of quantities* for the financing of Plant and Materials until they are incorporated in the *works*.

When compensation events arise, the default position is that the Bill of Quantities is not used to calculate the cost effect of the event. Defined Cost and the resulting Fee is used and Defined Cost includes all components of cost which the *Contractor* is likely to incur, including so called P & G items. Rates and lump sums from the Bill of Quantities, or from any other source, may be used instead of Defined Cost and the Fee only if the *Contractor* and *Project Manager* agree. If they are unable to agree, then Defined Cost plus Fee is used.

Measurement and payment

Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number
sum	Lump sum
t	tonne (1000kg)

General assumptions

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.

The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due.

The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. Detail regarding the extent of the work entailed under each item is provided in the Works Information.

Departures from the *method of measurement*

Amplification of or assumptions about measurement items

The following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 the *bill of quantities*

Items	Description	Unit	Quantity	Rate	Total
1	<u>SECTION A: PRELIMINARY & GENERAL</u>				
1.1	Fixed Charge Items				
1.1.1	Site Establishment	Sum	1		
1.1.2	Site De-establishment	Sum	1		
1.2	Time Related Items				
1.2.1	Office and storage sheds	Month	18		
1.2.2	Living accommodation	Month	18		
1.2.3	Ablution and latrine facilities	Month	18		
1.2.4	Tools and equipment	Month	18		
1.2.5	Water supplies, electrical power and communication	Month	18		
1.2.6	Control of water on site (Inclusive of pumping when required)	Month	18		
1.2.7	Plant required to execute the scope	Month	18		
1.2.8	Supervision	Month	18		
1.2.9	Provision of Responsible person as per the scope of work for contract duration	Month	18		
1.3	Compliance with OHS Act and Regulations (including the Construction Regulations, 2003)				
1.3.1	Health and Safety Requirements for duration of the contract				
1.3.1.1	Health and safety plan and all requirements	Sum	1		
1.3.1.2	Safety officer	Sum	1		
1.3.1.3	Personal Protective Equipment (PPE)	Sum	1		
1.3.2	Compliance to Enviromental requirement, Acts and Regulation	Sum	1		
2	<u>Desilting of HLD (all compartments)</u>				

2.1	Survey				
2.1.1	Pre-survey (bathymetry survey)	No	2		
2.1.2	Post survey (land survey)	No	2		
2.2	Isolation as per scope of work as per scope of work				
2.2.1	Fabricate a 12mm 800NB isolation plate which will be fitted on the pipe as per scope of work. The plate must also fit on the current flange welded on the pipe	No	2		
2.2.2	Weld the isolation plates on the 800NB discharge pipe to isolate compartment 1 & 3 (Plate to be removed during commission on completed compartement)	Sum	1		
2.2.3	Diving and exploring all suction lines for the feasibility to install the balloon for the suction lines.	Sum	1		
2.2.4	Supply and install inflatable plugs (balloon) to prevent back flow of water fo all suction lines of 1000mm diamater	No	3		
2.2.5	Draining of water to empty the compartments through pumping and maintain the level throughout the contract duration (See scope for specifcation)	Sum	1		
2.2.6	Supply and install a plastic pipe of 100mm diameter and length of 200m to divert effluent line as per scope of work	Sum	1		
2.2.7	Blankoff spillways between HLD 2&4, HLD2&1 and HLD3&4	Sum	1		
2.2.8	Install a balance line from line 3 that will discharge in HLD2&4	Sum	1		
2.3	Silt removal				
2.3.1	Take out silt from the High level dam to the ash dam as per scope of work	m ³	150 000		
2.3.2	Measuring and provide quantities removed as per scope of work	Sum	1		
2.3.3	Cleaning of spillways	Sum	1		
TOTAL					
No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT

TOTAL BROUGHT FORWARD					
2.4	Spillway repair work				
2.4.1	Scrabble and removed damage surface area of the concrete trenches	m ²	50		
2.4.2	Surface preparation (wire brush and clean the surface of the concrete to receive the new concrete topping)	m ²	50		
2.4.3	Apply 'wet to dry' epoxy to concrete surface to receive new concrete topping.	m ²	50		
2.4.4	Supply and pour 30Mpa quick dry concrete grouting.	m ³	10		
2.5	Temporary access on compartment 4				
2.5.1	Create an access on HLD4 spillways as per scope of work	Sum	1		
2.5.2	Supply and apply a wearing of 300mm on top of the sand bags for smooth road surface	Sum	1		
2.5.3	Supply and install gadrails both side of the spillway of length of 20m	Sum	1		
2.5.4	Remove temporary access together with the gadrails and reinstate t original the spillway structure on compartment 4	Sum	1		
3	BUILDING OF ACCESS RAMPS FOR EACH HIGH-LEVEL DAM ON HLD 1,2, 3 AND 4				
3.1	SITE CLEARANCE AND PREPARATION				
3.1.1	Clear and strip area to be covered by:				
	a. Removal of rip rap stones and stockpile at an area shown by the engineer	m ²	800		
3.2	EXCAVATION				
	Box cut into existing embankment				
	- intermideate excavation	m ³	400		

3.3	EMBANKMENT (FORMING)				
	<u>Construction of ramp</u>				
	Compact in layers not exceeding 200mm thick to 98% Proctor density at OMC	m ³	820		
3.4	Temporay ramp/bridge to access Compartment 3				
	Procure, supply and install 3000mm x 2400mm culverts on the spillway between compartment 1 and 2 to allow trucks to cross over to compartment 3	No	2		
4	COMPARTMENT NO.3 DAM ALL REPAIR				
4.1	SITE CLEARANCE AND PREPARATION				
4.1.1	Clear and strip area to be covered by:				
	a. Damaged embankment section for repair	m ²	600		
4.2	EXCAVATION				
	<u>Material suitable for embankment repair</u>				
	From embankment essential excavation and place in stock pile, material from:				
4.2.1	a. V-shape (bulk) excavation into damaged embankment:				
	- soft excavation	m ³	500		
4.2.2	b. Box cut on basin slope:				
	- soft excavation	m ³	100		
4.3	EMBANKMENT (FORMING)				
	<u>Repair of damaged embankment</u>				
4.3.1	Using material from stock pile	m ³	650		
	<i>All material to be compacted to 98 % Proctor Density @ optimum moist content (OMC)</i>				
	(Inclusive of wetting, backfilling, compacting and final forming of slope face)				
4.3.2	Allow for import of suitable earthfill from other source	m ³	170		

	<u>(to provide for sortage - if required)</u>				
4.4	<u>SECTION C: MISCELLANEOUS</u>				
	<u>Landscaping & Cleaning</u>				
4.4.1	Landscaping of areas around repaired embankment	Sum	1		
TOTAL					
No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
5	LEVEL INDICATOR				
	<u>Section H : Steel work</u>				
5.1	Fabricate and install level indictor as per scope of work	Sum	1		
6	<u>SECTION D: MATERIAL TESTING BY CERTIFIED LABORATORY</u>				
6.1	a. Test all layerworks as per specification	Sum	1		
6.2	b. Testing of materials (for control purposes) by only where directed by the Engineer				
	<i>Note that this item does not relieve the Contractor of his general obligations as regarding testing as required by the specifications during construction.</i>				
		Sum	1		
6.2	c. Testing of all steel material (NDT)	Sum	1		
SUB- TOTAL					
VAT					
TOTAL AMOUNT					

PART 3: SCOPE OF WORK

C3.1: EMPLOYER'S WORKS INFORMATION

See the attached Appendix



Scope of works for
High level dam clear

Quality assurance requirements

The *Contractor's* ISO 9001:2015 Certificate of compliance or equivalent must be supplied with tender documents. If the *Contractor* is not certified, the objective evidence of a developed and fully implemented Quality Management System that complies with ISO 9001:2015 requirements shall be submitted.

The *Contractor* shall comply with the *Employer's* Quality Requirements as specified in the Supplier Quality Management Specification 240 – 105658000 (QM-58). Form A (Tender and contract quality requirements for QM 58 and Quality Requirements for ISO 9001 standard) of this Specification indicates the specific application thereof.

All Quality Control documentation must be submitted to the *Employer* at least one month before project start. Quality Control Plans must include hold and witness points, must clearly state 3rd party interventions and quality/test specifications where applicable.

The Quality Control documentation that will be handed over within 30 days of order placement by the successful *Contractor* to the Employer and shall consist the following:

Quality Control Plan

The Quality Control Plan shall consist of the following as a minimum and shall be accepted by the *Quality representative* of the *Contractor* prior to commencement of work and shall be sent to Eskom for approval. The QCP will also include welding procedures where applicable.

A covering page, table of contents and QCP which includes and makes provision for the following but not limited to:-

- QCP unique number.
- Revision number.
- Page number
- Provision for QCP approval signatures by the *Contractor* (Supervisor and Quality Controller) and Eskom System Engineer and/ or Eskom QC.
- Provision to incorporate all inspection reports or any form of records to prove conformity to requirements.
- High level description of work in execution including Item/ component/ system/ sub-system.
- Provision for nomination of intervention points for each activity as per SOW.

- Provision for review and approval signatures and dates by the *Contractor* (Supervisor and Quality Controller) and Eskom System Engineer and/ or Eskom QC.
- Provision for final acceptance/ releases approval signatures by the *Contractor* (Supervisor and Quality Controller) Eskom System Engineer and/ or Eskom QC.

Test Reports

Where tests were performed they shall be recorded and the positions of measurements are traceable to the specific area of testing against the records. Therefore the Contractor will submit all test reports that has been performed in the form of Data Pack.

Procedures

Contractor to submit all work procedures/instructions before any work commences. These must be submitted together with QCP for approval.

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

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

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

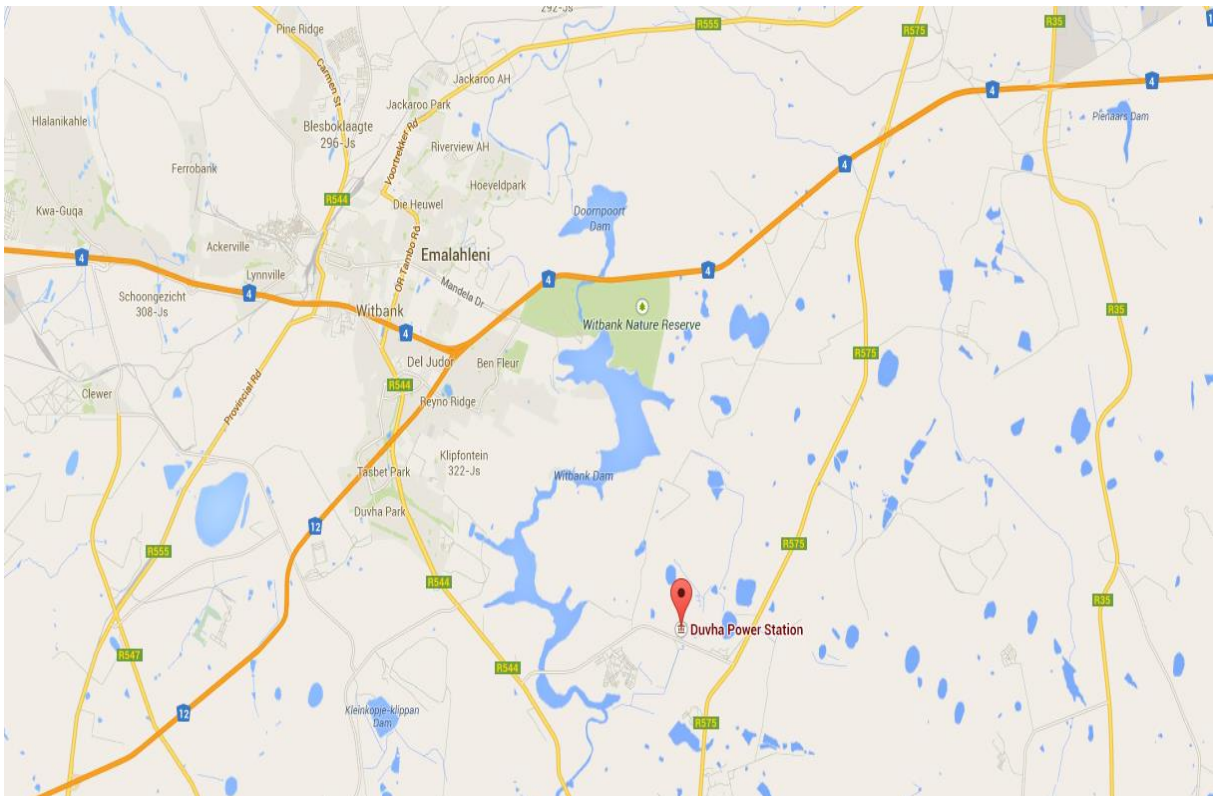
.
[Insert the agreed ASGI-SA Compliance Schedule here]

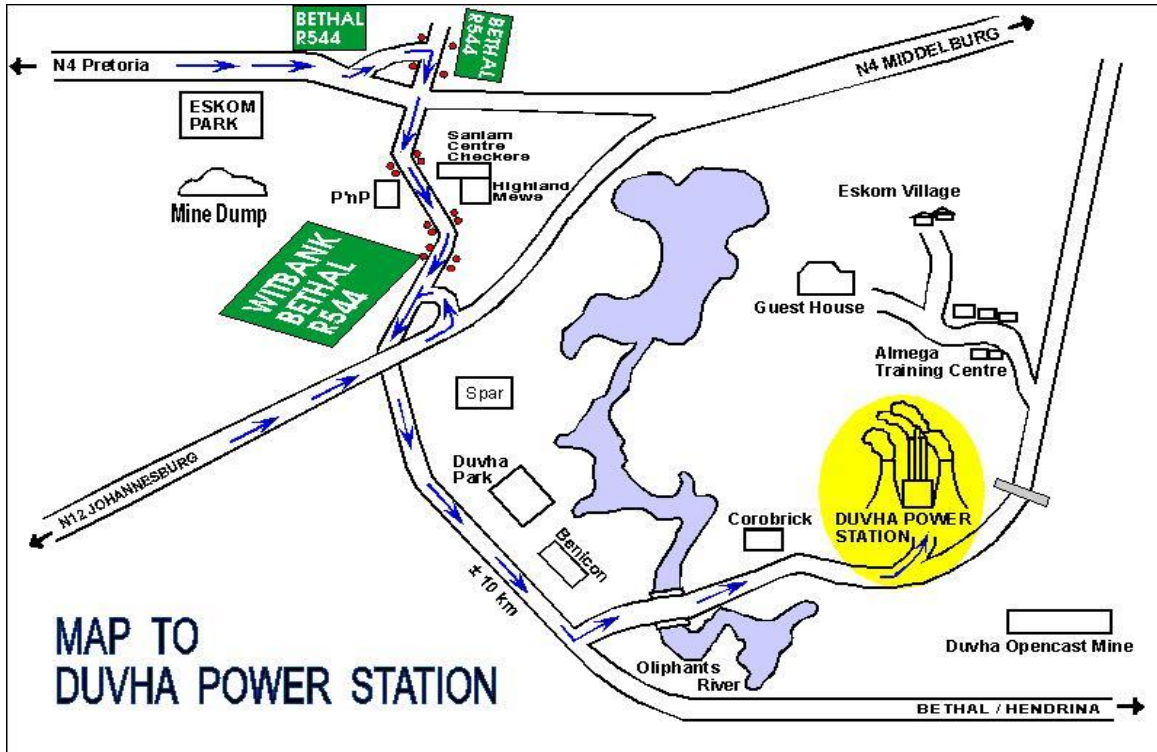
The *Contractor* shall keep accurate records and provide the *Project Manager* with reports on the *Contractor's* actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

PART 4: SITE INFORMATION

1. Site Location

Duvha Power Station is located approximately 15km from Emalaheni, Mpumalanga Province and at an elevation of 1 600m above sea level. The location and access roads are shown in the diagrams below.





2. General description

Location of working area: circled in red, Duvha Power Station South cooling towers, Water treatment Plant, Unit 4 22m level equipment room



3. Wetland and No go Areas

Green polygon - is an artificial wetland likely caused by altered drainage and associated infrastructure causing ponding and the establishment of wetland vegetation.

Works in the red highlighted circle will require a method statement and Risk Assessment. No work to be carried within the orange area unless is 50 meters away. The area is marked as a no go area for construction activities.



Area E: Originally Proposed Fabrication Area
Area E2: Alternative Fabrication Area (Area E2 selected as suitable option)
Access Road: Proposed one way connecting road to Area E2 (Traffic Management)

Fig A



FIG B

4. Maintenance and Housekeeping

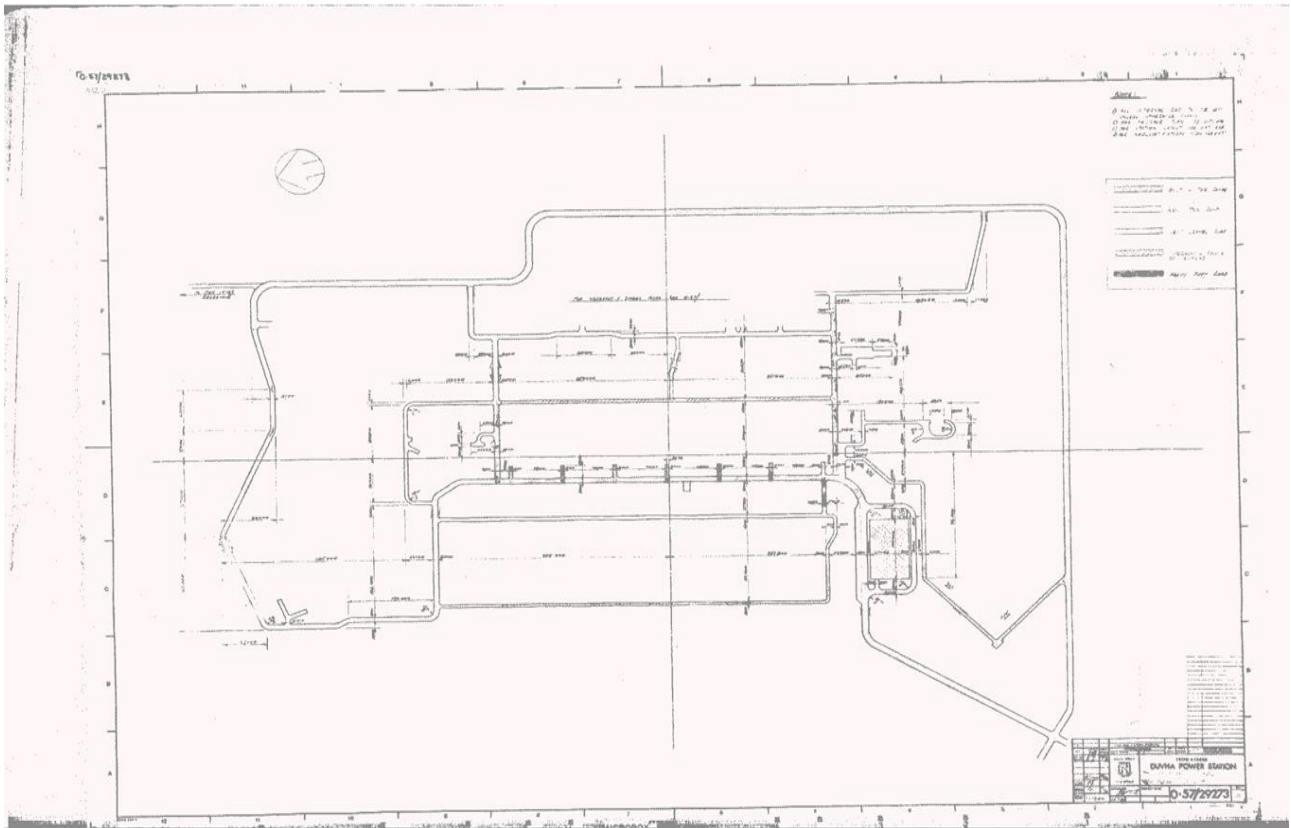
Maintenance of and within the Laydown Area and housekeeping of the Laydown and Working Areas will be the sole responsibility of the Contractor. All waste will be managed in accordance with Eskom Waste Management Procedure 32-245

5. Roads

The Contractor is provided with the Station Roads Layout (0.57/ 29273) which indicates the position of roads, width and turning radii, in order to plan access and movement of vehicles to Duvha Power Station. The Contractor’s proposed route is issued to the Employer for review and acceptance. The Contractor is also issued certain available long sections and cross sections of the access roads.

The Contractor identifies the type of vehicles (incl. loading capacity), number of vehicles, and frequency of vehicles required in order to complete the works. The Contractor takes note that all existing available roads drawings are provided for information only. The Contractor is responsible for verifying the information provided before use.

- *Drawings provided for information only:*
- *0.57/ 29273 - Duvha Power Station, Station Roads Layout*



Note: The employer will provide electronic format of the above drawings, at the contractor request.

6. Services

a) Air

The Contractor is responsible for the supply of compressed air as is necessary for the execution and completion of the Works and remedy of defects.

b) Water

The *Employer* is to supply free issue potable water for domestic use, at a designated supply point. For uses other than domestic, the Contractor is responsible for the supply of water. Supply is based on reasonable use. The Supply point information is as per the Laydown and Working Areas Schedule.

Contractor is responsible for connection to the designated supply point and routing to desired areas within Laydown and Working areas.

c) Electrical Power Supply

Power is available at the existing points as provided by the *Employer*.
The Contractor provides his own portable 380V electrical distribution boards, and supply cables to and from the boards, for all his power supply requirements to execute the works.

Contractor's Electrical Distribution Boards complies with OHSA as referred to in the Electrical Installation Regulations and the Electrical Machinery Regulations.
Each board brought onto site must have a Certificate of Compliance issued by an accredited person.

The Contractors electrical distribution boards are installed at the works on a time negotiated with the Project Manager, prior to the access to the working site.
The Employer connects distribution boards to a 380V three-phase AC power supply, only after the Contractor has submitted the valid Certificate of Compliance.
All Contractors' Electrical Distribution Boards are earthed to the steel structure of the plant.

d) Sewage

The Contractor is responsible for either connecting to the local Sewage system or providing other means of managing sewage as required. The Contractor is responsible for connection to the designated supply points.

e) Gas

The Contractor is responsible for supply of any Gas as is necessary for the execution and completion of the Works and remedy of defects.

f) Communications

The Contractor will be responsible to provide for all communications services, including but not limited to internet, telephone, radio, required for the execution and completion of the Works and the remedy of Defects.

g) Overhead lines

The *Contractor* is responsible for ensuring any activities on Site do not interfere, impede or in any way disrupt any overhead lines, pylons or other transmission and distribution equipment. This is including but not limited to the transportation of Contractor's Equipment, Materials, Plant and Temporary Works to and from the Laydown and Working Areas.

The Contractor will be notified by the Employer for any services interruptions longer than 24 hours. Planned interruptions may include strikes, maintenance and repairs activities etc.

7. Roads, facilities and Security

7.1 Access Road

The Contractor will be deemed to have been satisfied as to the suitability and availability of access routes to the Site (and other places, if any, as may be specified under the Contract as forming part of the Site).

7.2 Access to Site

Access to Site and continued use of the Site will be in accordance with Duvha Access Control Procedure SCP0004 and the National Key Points Act, 1980 (Act No. 102 of 1980). The following must also be noted:

- a) The *Contractor* applies for access permits for all works via the Employer's Representative.
- b) The Contractor applies for Contractor's Permits for all his employees and/or subContractors at the Security gate, at least 72 hours prior to entry of the Duvha Power Station Security Area.
- c) The Contractor submits his/her company's employee list to the Employers Safety Department listing all of the personnel that he intends using on Site when booking for SHE Induction as soon as the Contractor SHE File has been assessed and approved. At least 48 hours prior notice must be given to the Employer's Representative of the requirement to attend Site SHE inductions.
- d) The completed list, identified with the Contractor's name, contains the following information:
 - Employee Name
 - Employee ID Number
 - Eskom Safety Co-ordinator signature
 - Employer's Representative's signature
 - Validity Date
- a) No access permits are issued to personnel who have not attended SHE induction. A copy of proof of SHE induction attendance must be presented at Security when applying for employee access permits.
- b) The Contractor photocopies the first page of the ID book of every one of his employees.
- c) This completed list, together with the photocopies of the ID books / valid Passport / Work Permit is delivered to Protective Services for the preparation of the Contractor's Permits.
- d) The Contractor allows at least 48 hours for the preparation of the security permits, before he collects the permits from the Protective Services offices.
- e) The Contractor's personnel are required to be in possession of a Contractor's Permit at all times inside Duvha Power Station.
- f) All Contractor permits are submitted back to Protective Services when the workers leave the site after completion of the works. The Contractor will ensure that all its employees/workers return such permits to the Employer. Failure to return the permits will result in a R100, 00 penalties for each non returned permit which will be deducted from the final payment.
- g) The Contractor compiles detailed Tool Lists (obtainable from Protective Services) of all tools and equipment to be taken on site before arriving at the power station.
- h) Authorised copies of these lists are retained to be used again when the tools and equipment is removed from site.
- i) The Contractor's visitors and all personnel conform to the security arrangements in force at Duvha Power Station.
- j) Application forms for visitors are filled in by the Contractor's Representative and approved by the Employer, and submitted to the Employer's Protective Services office one day prior to the visit.

- k) Visitors will not be allowed on site if the necessary forms are not in the possession of security staff.
- l) The Employer's Security Manager may, with valid cause, remove any of the Contractor's personnel from the site, either temporarily or permanently. They may deny access to the site to any person whom, in the opinion of the said manager constitutes a security risk.
- m) No unauthorised vehicles will be allowed on site. Only Contractor vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications are directed to the Employer's Representative for consideration and approval.
- n) The Contractor is restricted to the Site. The Contractor is forbidden to enter any other areas, and ensures that his employees abide by these regulations.
- o) No recruiting of casual labour may be done on Eskom premises, including the area outside the Power Station Security Gate.
- p) Security personnel may search any premises, property or person within the security area of Duvha Power Station
- q) No photographic equipment will be allowed within the security area of the Power Station without obtaining permission. Application forms for such permission is available from the Security Services offices at the main entrance. Any person found in possession of such equipment will be prosecuted in terms of the National Key Point Act.

7.3 Security of Working Areas

The Contractor is responsible for the security and safe keeping of all Working areas and any associated Contractor's Equipment, Materials, Plant, Temporary Works and Employer's Equipment as may be located within those areas.

The Contractor will at all times comply with the National Key Points Act, 1980 (Act No. 102 of 1980) within the parameters of the power station. The Contractor's proposal for achieving this will be submitted to the Employer for review within 14 days of the starting Date and the Employer will respond within 14 days of receipt.

The National Keys Point requirements will not be applicable to areas that fall outside the boundaries of the Duvha Power Station fence parameter. The Contractor will be responsible for security and access control for the Working areas. The access control must be a biometric type with capability to store all information, data retrievable, must be accessible and be able to indicate who is at the Working areas at any point in time.

The Contractor will be responsible for keeping unauthorised persons out of the Working Areas. Authorised persons will be limited to the Contractor's personnel, the Employer's personnel, Others and any other personnel notified to the Contractor by (or on behalf of the Employer), as authorised personnel. In addition, the Contractor will fully acquaint himself and strictly comply with all the Employer's security regulations particularly with regard to personnel, Plant, Material and the Contractor's Equipment entering or leaving the Site.

7.4 Welfare Facilities

The Contractor is responsible for provision, accessibility, maintenance, disposal of waste within, and housekeeping of all welfare facilities within the Working Areas, which include but are not limited to ablution, eating, changing, shower and rest areas. As a minimum the following will be provided:

- Shower facilities;

- Sanitary facilities;
- Changing facilities;
- Eating areas;

The Contractor is responsible for the provision and maintenance of the ablution facilities provided for his employees on the Working and Laydown areas. Additional sufficient temporary ablution facilities need to be put up by the Contractor on working area at various levels. These must be serviced and maintained as per health standard pertaining to the health and safety of these facilities.

The Contractor will provide sheltered eating areas for use of all Contractors' personnel on Site. Eating areas will provide adequate shelter and will be ventilated and lighted. Tables and backed seating will be provided. Suitable receptacles with lids for depositing waste will be provided at convenient points inside and outside the eating areas.

The Contractor will ensure compliance to all legislation Eskom's Food Hygiene and Safety Management - 39-113 procedure with respect to food management. Compliance will be verified during the client's audits and inspections on the Contractor.

Welfare, Ablution and Dinning facilities provided by the Contractor must be approved and be acceptable to the Employer.

The Contractor is responsible for provision of suitable Ablution facilities within the Working areas, which as a minimum will meet all relevant legislation. These facilities are to be provided in sufficient quantities and within sufficient proximity to the Works so as not to impede the Works or the operations of the Duvha Power Station. The Contractor shall provide his own permanent and temporal Ablution facilities. The permanent toilets shall be erected and fully functionally by the access to site date.

The Contractor is responsible for the provision of all meals for employees, in line with all relevant legislation and standards. The Contractor is responsible for the provision of suitable eating areas and these facilities are to be provided in sufficient quantities and within sufficient proximity to the Works so as not to impede the Works or the operations of the Duvha Power Station.

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

7.5 People and Equipment Movement

a) Passenger or Goods Lift

The Employer will not provide any passenger or goods lift services.

b) Meetings

All meetings are to be recorded using minutes or a register, prepared and circulated by the person convening the meeting. Such minutes or register are not used for the purpose of confirming actions, instructions or determinations under the Contract as these are done separately by the person(s) identified in the conditions of contract to carry out such actions, instructions or determinations. All meetings will be as per the Employer's specified Project Control specification.

c) Permits

The Contractor will comply with the Generation Plant Safety Regulations 36-681 at all times. The Contractor will provide an acceptable number of authorised Responsible Persons in accordance with the Generation Plant Safety Regulations to ensure that no delays occur during the execution of the Works and removing of defects. Duvha Power Station Training will be the responsibility of the Contractor. Verification, examination and authorisation of the nominated persons will be the responsibility of the Employer and will be performed on dates nominated by the Employer. Should the Contractors nominated persons fail to achieve the required standards, any further training, verification, examination and approval will be the responsibility of the Contractor. The Contractor is to provide the proposed number of people to be authorised as a tender returnable.

8. Construction Rules**8.1 Works Stoppages**

The *Contractor* will conduct a safety work stoppage for every LTI and fatality. Work Stoppages may include critical and high risk activities, suspension of work or part of the works by Eskom inspectorate Team or Department of labour inspectors. Suspension or withdrawal may be as a result of closure of Site/working area due to an accident/incident and non-compliance to procedure, legislative change and requirements. Activities may commence if the area is declared and certified safe for people to work. The Contractor shall have at least one work stoppage per quarter (every three months) for incident lessoned learn, risk analyses, review and incident reviews.

8.2 Critical activities

All rigging method statements, lift plans and other relevant documents will be reviewed by the Employer, prior to the relevant activity commencing. The review period for method statements is 14 days as provided on the Contract Data and if the Employer gives notice to the Contractor that a method statement fails to comply with the Contract, as per General Conditions Clause 5.2, it will be rectified and resubmitted within 7 days of notification. Compliance to the use of PPE, parking on designated areas, adherence to smoking policy, and trespassing, entry and exist to restricted areas will be monitored by the Contractor.

8.3 Electronic devise usage

Cell phone usage will be in accordance with Eskom procedure 36-583. No cellphone or any other electronic devices will be used whilst conducting critical work, and high risks activities unless otherwise authorized by the Employer. Such communication devise exclude two-way radios and devises used for the works.

8.4 Respecting the Working areas

In order to provide a safe working environment and to respect all persons on the Site, the following are strictly forbidden:

- Spitting
- Urination (other than in designated toilets)
- Defecation (other than in designated toilets)
- Sexual Activities

The Employer will be entitled to immediately remove, or instruct the Contractor to immediately remove, any person for whom the Contractor is responsible for who is in violation of the above, in accordance with applicable contract conditions and/or other rules and regulations.

9. Environmental

9.1 Environmental Policy

The Contractor will implement, and provide a copy of, an Environmental Policy which complies with Environmental Management System ISO 14001 requirements. A copy of the applicable policy will be provided as a tender returnable.

9.2 Method Statements

No activity will commence before Method statement is approved by the Employer. The Method Statement will be submitted for acceptance by the Employer. All Method Statements will include, but not be limited to include, the following environmental information:

Detailed scope of work

- List of equipment to be used
- List of chemicals to be used with complete MSDS's
- Risk Assessment of the Environmental Risks associated with the activities
- Management Plan of the identified significant risks
- Waste Management Plan
- Oil Spill Management Plan
- Incident reporting and management
- Layout plan approved by the Supervisor.
- Storm water management and erosion control plan

9.3 Environmental Management Programme

This Environmental Management Programme (EMPr) is prepared as part of the requirements of the 2010 Environmental Impact Assessment Regulations promulgated under the National Environmental Management Act (NEMA, Act 107 OF 1998) as amended 2010.

The purpose of this Construction EMPr is to provide an easily interpreted reference document that ensures that the project environmental commitments, safeguards and mitigation measures from the environmental planning documents, project approvals, and Scope of Works are implemented.

The objectives for the EMPr are:

- a) To develop, implement and maintain effective management systems for the environmental aspects of the maintenance works;
- b) To monitor effectiveness of controls aimed at preventing impacts associated with aspects
- c) To ensure compliance with relevant legislation (National, Provincial and Local), regulatory requirements and environmental documents;
- d) To maximise the value and outcomes of environmental monitoring activities so that the information can be applied to the planning and implementation of future projects;
- e) To ensure that all Environmental Management considerations are implemented during the Construction only

The EMPr follows an approach of identifying an over-arching aim and objectives accompanied by management actions that are aimed at achieving these objectives. The EMPr is divided into five (5) phases of the project cycle:

- Planning and Design Phase;
- Construction and Site Preparation;
- Rehabilitation Phase;
- Operational Phase; and
- Project Closure.

Contractor to adhere with Project Environmental Management Plan (EMP), site information and other legislative requirements

9.4 Refuse Disposal

Waste disposal must be as per the ENV 0005

The Employer will provide special colour coded bins for refuse disposal. The Employer will be responsible for emptying these bins. The Contractor will ensure that all his personnel and SubContractors strictly adhere to the correct use of refuse bins, coloured coded as follows:

- Maroon bins:- Scrap metal only
- White bins: - Lagging and general household rubbish
- Yellow bins:- Ash, dust, coal dust and sand

For the entire duration of the Works, the Contractor is responsible for keep the Working Areas clean of any rubble, and to place all refuse into the bins provided.

10. Other reports and publicly available information

10.1 Weather Data

10.1.1 Geotechnical Data

Contractor is responsible for any Geotech required. The following geotechnical reports are provided as Appendices to this document:

Electricity Supply Commission- Report on the Additional Drilling for Proposed Remedial Works at the Main Station Building, Duvha Power Station November 1979, Parts 1 to 4

This is provided for information purposes only and the Contractor must verify before use.

a) General Weather Conditions

The climate of the site is typical of Highveld conditions, with high summer temperatures and moderate to cold winters. Temperature statistics for the climatically similar to Bethal was obtained from the South African Weather Service website (www.weathersa.co.za). The Contractor will consider whether condition within all working site including areas where procurement outside the working site is considered. Measuring device is available at Duvha and to be agreed upon by both parties.

Climatic conditions will be defined as exceptionally adverse only when the measured condition deviates from the supplied average data by a margin of 30%, over the time period as stated within the average data (e.g. daily or monthly)

b) Temperature

During the summer months (October to March) average daily maximum temperatures are between 24°C and 35°C and average daily minimum temperatures are between 0°C and 14°C.

In the winter months (April to September) average daily maximum temperatures vary between 17°C and 23°C and average daily minimum temperatures are between 1°C and 9°C.

c) Snow and mist

Frost occurs frequently during the winter and spring months. Temperature statistics for the climatically similar to Bethal was obtained from the South African Weather Service website (www.weathersa.co.za).

The number of days with mist (no visibility) measuring in excess of a predetermined number of days, the Employer will make a proposal during contract negotiations

All records will be kept.

d) Rainfall

The area experiences thunderstorms during the summer months, which usually occur in the late afternoons. The annual average precipitation (millimetres) is show below. Weather Data for 2011-2014 to be provided as an addendum

Month	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jan	176	207	77.5	296	223.5	173	-	-	-	-	65
Feb	59	102	17	17	63.5	53	-	-	-	-	21.8
March	54	46	26	121	55	40	-	-	-	-	30.6
April	53	42	6	0	0	126	-	-	-	-	29.4
May	0	4.5	0	44	14	83	-	-	-	-	0
June	0	0	30	0	17	0	-	-	-	-	0.8
July	0	0	0	0	0	0	-	-	-	-	1
Aug	2	40	0	0	30.5	0	-	-	-	-	0.4
Sept	0	0	0	0	8	0	-	-	-	-	46.2

Oct	35.5	17.5	163	47	82.5	46.5	-	-	-	-	34.2
Nov	142	80	179	138.6	153	59.5	-	-	-	-	54.2
Dec	65	148.5	127.3	174	148	237	-	-	-	-	135.2
							-	-	-	-	
Total	586.5	687.5	625.8	837.6	795	818	-	-	-	-	418.8

e) Wind

The area is subject to winds predominantly from the north and northwest, with greatest frequency during the months of August to December. During the remainder of the year, the wind remains generally in a north/north westerly direction, but with a lesser frequency. Critical activities, carnage and working at height will be as per legislative requirements, equipment and

