



NEC3 Engineering and Construction

Short Contract (ECSC3)

A contract between Eskom Holdings SOC Ltd (Reg No. 2002/015527/30)

and

for **Repairing of the Storm Water Pipe at High Voltage (HV) Yard at Duvha Power Station for 5(five) Months**

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Documentation prepared by: **Nokwazi Base**

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

Repairing of the Storm Water Pipe at High Voltage (HV) Yard at Duvha Power Station

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, 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.

The offered total of the Prices exclusive of VAT is	R[●]
Value Added Tax @ 15% is	R[●]
The offered total of the Prices inclusive of VAT is	R[●]
(in words) [●]	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf 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:

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 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part 2 Pricing Data

Part 3 Scope of Work: Works Information

Part 4 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 Tender 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, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week 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 and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

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 tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____'

Schedule of Deviations

Note:

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

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

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

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

For the tenderer:

For the Employer

Signature

Name

Capacity

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

Name &
signature
of witness

Date

C1.2 Contract Data

Data provided by the *Employer*

Completion of the data in full is essential to create a complete contract.

Clause	Statement	Data
General		
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 & 14.4	The <i>Employer's</i> representative to whom the <i>Employer</i> in terms of clause 14.4 delegates his actions ¹ is (Name):	Nokwazi Base
	Address	Duvha Power Station
	Tel No.	+27 136 900 283
	Fax No.	+27 867 516 274
	E-mail address	BaseN@eskom.co.za
11.2(11)	The <i>works</i> are	Repairing of the Storm Water Pipe at High Voltage (HV) Yard at Duvha Power Station for Five months
11.2(13)	The Works Information is in	the document called 'Works Information' in Part 3 of this contract.
11.2(12)	The Site Information is in	the document called 'Site Information' in Part 4 of this contract.
11.2(12)	The <i>site</i> is	Next to HV Yard area
30.1	The <i>starting date</i> is.	01 November 2025 (Subject to change)
11.2(2)	The <i>completion date</i> is.	31 March 2025 (Subject to change)
13.2	The <i>period for reply</i> is	1 Week
40	The <i>defects date</i> is	52 Weeks
41.3	The <i>defect correction period</i> is	2 Weeks
50.1	The <i>assessment day</i> is the	24th of each month
50.5	The <i>delay damages</i> are	R10 000 per calendar day to the maximum of 10% of the contract value, aligned to the accepted baseline program
50.6	The retention is	5% of the contract value amount

¹ Except those actions which can only be done by the *Employer* as a Party to the contract.

51.2	The interest rate on late payment is	N/A
80.1	The <i>Contractor</i> is not liable to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property in excess of	the amount of the deductibles relevant to the event
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	No
93.1	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	[•]
93.2(2)	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
93.4	The <i>tribunal</i> is:	arbitration.
	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
	- if the arbitration procedure does not state who selects an arbitrator, is	of the Association of Arbitrators (Southern Africa) or its successor body.
The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013)²³ and the following additional conditions Z1 to Z11 which 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*.

² If June 2005 Edition applies, delete April 2013 and insert June 2005

³ State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

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

- Z2.1 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.
- Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z2.4 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 those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z3 Confidentiality

- Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. 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 where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z3.3 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.
- Z3.4 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 *Employer*. All rights in and to all such images vests exclusively in the *Employer*.
- Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

- Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates 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.

Z5 Health, safety and the environment

- Z5.1 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.
- Z5.2 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.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

- Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Works Information, showing the correctly assessed amount due for payment.
- Z6.2 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 clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z6.3 The *Contractor* 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.

Z7 Notifying compensation events

- Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.1

- Z8.1 The *Employer* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

- Z9.1 or had a business rescue order granted against it.

Z10 Addition to Clause 50.5

Z10.1 If the amount due for the *Contractor's* payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Employer* may terminate the *Contractor's* obligation to Provide the Works.

If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z11 Ethics

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

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

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 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.

Z11.3 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.

Z11.4 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.

Z12 Insurance

Z _12.1 Replace core clause 82 with the following:

Insurance cover 82

- 82.1 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.
- 82.2 The *Contractor* provides the insurances stated in the Insurance Table A, 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	Cover provided until
Loss of or damage to the works	<p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance</p>	The <i>Employer's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	<p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date, where covered by the <i>Employer's</i> insurance</p>	The Defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Works	<p><u>Loss of or damage to property</u></p> <p><u>Employer's property</u></p> <p>The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible as at contract date where covered by the <i>Employer's</i> insurance</p> <p><u>Other property</u></p> <p>The replacement</p>	

	cost	
	<u>Bodily injury to or death of a person</u>	
	The amount required by the 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	

82.3 The *Employer* provides the insurances as 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

Z13 Nuclear Liability

Z13.1 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.

Z13.2 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*.

Z13.3 Subject to clause Z13.4 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*.

Z13.4 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.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 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.

Z14.1 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.

- Z14.2 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 Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 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.
- Z14.5 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.
- Z14.6 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.
- Z14.7 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.

Data provided by the *Contractor* (the *Contractor's Offer*)

The tendering contractor is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)⁴ 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 page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The <i>Contractor</i> is (Name):	[•]
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	E-mail address	[•]
63.2	The percentage for overheads and profit added to the Defined Cost for people is	[•]%
63.2	The percentage for overheads and profit added to other Defined Cost is	[•]%
11.2(9)	The Price List is in	the document called 'Price List' in Part 2 of this contract.
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	R [•] excluding VAT [in words] [•] excluding VAT

⁴ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns in the Price List 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 tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

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

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.2 Price List

Item no.	Description	Unit	Quantity	Rate	Price
	<u>SECTION: PRELIMINARY AND GENERAL</u>				
SANS	CONTRACTOR's GENERAL OBLIGATIONS:				
1200 A	PRELIMINARY & GENERAL				
8.3.1	Fixed Charge Items				
	Site Establishment	Sum	1		
	Site De-establishment	Sum	1		
8.4.1	Time Related Items (Contractor to provide cost break down and should include all required plants)	Months	3		
8.10	Compliance with OHS Act and Regulations (including the Construction Regulations, 2003)				
	Health and Safety Requirements	Sum	1		
	Dust suppression for the period of the contract	Sum	1		
	ISOLATION				
	Construction of a single brick wall inside the v-ditch to station south drain as per scope of work	m ²	4		
	Provision of sandbags	Sum	1		
	Provision of 20l/s submissible dewatering pump with a 40m lay flat pipe for seepage collection	Months	3		
	Repair of existing isolation wall at sump 1 with grouting	m ³	2		
	DEMOLITION				
	Break and dispose of a section of concrete floor slab inside the v-ditch	m ²	4		
1200 D	EARTHWORKS				
	Excavation within the v-ditch to the station	m ³	7		

	south drains, excavated material to be stockpiled for backfilling.				
	Excavation around the stormwater pipe inlet	m ³	82		
	Backfill and compact using existing material in layers of 150mm as per scope of work	m ³	40		
	Backfill and compact using exported material to be a G5 material grade	m ³	45		
	SUMP INTERNAL SURFACE GROUTING				
	Clean the sump as per scope of work.	m ²	95		
	Chipping and removal of corroded sections on the walls and stormwater pipe inlet.	m ²	10		
	Chip and remove the old acid-resistant lining	m ²	95		
	Supply, mix and apply wet to dry epoxy product for concrete bonding on all areas to receive grouting.	m ²	10		
	Supply, mix and apply high strength non-shrink grouting on all the corroded sections of the sump and the around the internal surface of the stormwater pipe to sump joint as per scope.	m ³	20		
	Supply, mix and apply acid resistant coating as per scope of work.	m ²	95		
	Filling of possible sinkholes' formation around the sump				
	Supply and pump 30Mpa soilcrete	m ³	30		
	Removal of temporary isolation walls				
	Demolish the concrete isolation wall inside the cable tunnel, inside sump 1 and inside v-ditch to station south drains	m ³	10		
	Demolish the single brick wall isolation inside the v-ditch from cooling towers	m ²	9		
	Repair and restore the concrete side wall and the v-ditch floor panel from the cooling towers using 30Mpa concrete	m ³	7		
	Supply and install ref.395 welded mesh for the v-ditch panel	m ²	4		
	Access road surfacing				
	Conduct survey for road levelling	Sum	1		
	Rip and store a layer of 200mm surface material	m ³	150		
	Shape and compact the insitu to Mod AASHTO 93%	m ²	700		

	Mix, treat and lay a 150mm thick road base using the existing material to create C2 material (Stabilized with 3% cement)	m ³	150		
	Level and compact the base to 95% Moad AASHTO	m ²	700		
	Supply and lay Damp proof course (DPC)	m ²	700		
	Supply, lay and compact using river sand on top of the paving brick	m ³	30		
	Lay interlocking paving bricks using existing	m ²	85		
	Supply and lay interlocking paving bricks	m ²	620		
	Supply and cast mass concrete of 15MPa/13mm stones on all edges of the pavement.	m ³	28		
	Testing				
	1) Conduct all concrete test as per specification	Sum	1		
	2) Conduct all earth work as per specification	Sum	1		
	3) Conduct scan to locate underground utilities	Sum	1		
	The total of the Prices (excluding VAT):				

C3: Scope of Work

C3.1 Works Information

INTRODUCTION

Duvha Power Station Heavy Voltage (HV) yard sump 2 is a component of the station south drainage system. The sump captures both storm and dirty water from the Water treatment plant (WTP), Low pressure services (LPS) and some of the south surrounding areas. Over the past years corrosion has been developing on the sump concrete structure due to seepage of contaminated water from the WTP. The deterioration of the concrete structure has led to seepage of water from the sump to the surrounding area. The area within the sump is currently saturated with water such that when the sump is drained there is seepage water flowing back to the sump through the corroded sections of the concrete structure as well as through the joint between the sump wall and inlet of stormwater to the sump. This document details the requirements for the sump concrete repairs as well as draining of seepage outside the sump and rehabilitation within and underneath sump to fill up possible sinkholes on the compromised underlying soil.

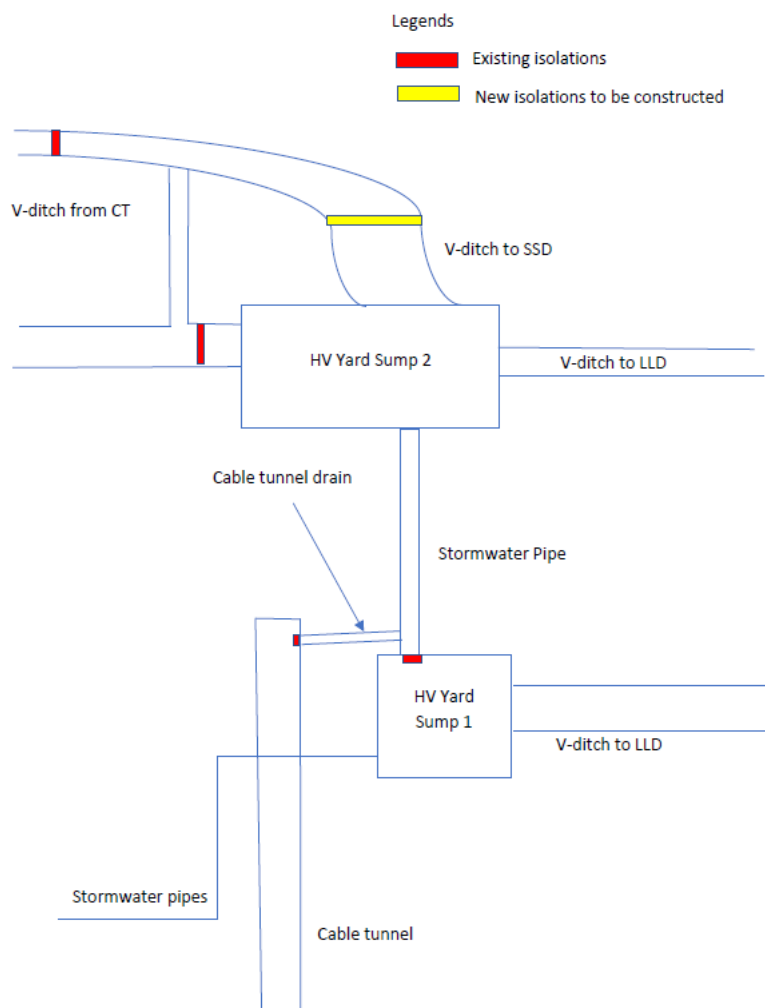


Figure 1: Station south drains layout.

SCOPE

This document covers the minimum technical specification for the scope of the works. The scope covers the following.

- Excavation on the lower side of the sump (inside the station south drain v-ditch) and stormwater pipe joint to the sump.
- Construction of a temporary wall inside the station south drain v-ditch.
- Inspect and repair the temporary wall inside the HV yard sump 1.
- Provision of pumping for drainage of seepage water from the ground.
- Filling up of sinkholes and soil erosion underneath and surrounding area.
- Repair of stormwater to sump joint.
- Repair of sump concrete structure.
- Relining of the sump with acid resistance.
- Backfilling and restoration of the sump surrounding structures and soil.
- Removal of temporary isolations in the cable tunnel, HV yard sump 1, v-ditch to station south drains and v-ditch from cooling towers.

Purpose

The purpose of this document is to describe in detail the technical specification for scope of work for HV yard sump repairs prescribed herein to be conducted by an appointed contractor.

Applicability

This document applies to Duvha Power Station only.

NORMATIVE/INFORMATIVE REFERENCES

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

Normative

- 1) ISO 9001 Quality Management Systems.
- 2) ENVP0005 - Duvha Power Station Waste Management procedure
- 3) 240-107981296, Constructability Assessment Guideline
- 4) 240-53114186, Project/ Plant Specific Technical Document and Records Management Procedure
- 5) National Environmental Management Act, 1998 (Act 107 of 1998)
- 6) National Environmental Management Waste Act, 2008 (Act 59 of 2008)
- 7) SANS 2001, Construction Works (All applicable parts)
- 8) 32-727 - Eskom Safety, Health, Environment and Quality (SHEQ) Policy
- 9) Occupational Health and Safety Act No. 85 of 1993, Asbestos regulations.

These documents are indispensable for the application of this document, i.e., documents to be used together with this document.

Informative

- 1) 474-58 (Rev1): Document and Records Management

- 2) 240-53114026, Project Engineering Change Management Procedure
- 3) 240-76992014, Project/Plant Specific Technical Documents and Records Management Work Instruction

DEFINITIONS

Disclosure Classification

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

BREVIATIONS

Abbreviation	Description
ECSA	Engineering Council of South Africa
ISO	International Organisation of Standards
OEM	Original Equipment Manufacturer
SANS	South African National Standards
SHEQ	Safety, Health, Environmental & Quality
SE	System Engineer
PM	Project Manager
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan
RT&D	Research, testing and Development
TDS	Technical Data Sheet

1. Description of the works

The Contractor is responsible for executing the scope of work that includes but not limited to earthworks, concrete works, acid resistance coating, pumping of water as well as GPR scanning. The Contractor takes all necessary precautions that may be required to safeguard existing infrastructure and services including protection of all surface works. All the works required and described herein shall be detailed in a method statement thoroughly explaining how the work will be executed in a safe way and achieving the quality of work required.

The Contractor takes note that review and acceptance of any document/ drawing by the Project Manager in no way relieves the Contractor of his liability for the works. The Contractor remains liable for all works conducted as per this document.

The Contractor is liable and fully accountable for the works and the constructability thereof.

The Contractor interacts with others through the Project Manager, to ensure seamless integration of the various works.

Only trained personnel are allowed to perform repair and replacement works of all infrastructure.

Records of training are maintained by the Contractor's Quality Control Department

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Records of training are maintained by the Contractor's Quality Control Department

2. Drawings

Drawing number	Revision	Title

3. Specifications

Earthworks specifications

Imported Material

- Natural Gravel or natural gravel boulders which might require crushing or crushed rock
- The percentage by mass passing the 2.00mm sieve shall not be less than 20% nor more than 70%.
- Atterburg limits – Liquid limit (LL) shall not exceed 30 Plasticity Index (PI) shall not exceed 10 LS shall not exceed 5%
- Strength - CBR at 95% of Modified AASHTO density shall not be less than 45%

Excavation

No excavations are permitted without an excavation permit obtained from the Project Manager. The Contractor complies with the requirements of the Construction Regulations. Excavations are performed such that it imposes a minimum restriction on access to Site for Others. Excavation permits are only issued if the area has been scanned by the Contractor, to ensure that there are no underground services in the area to be excavated. Refer to 32-727, Eskom Safety, Health, Environment and Quality (SHEQ) Policy.

Specification data associated with SANS 2001 BE1 – Earthworks Clause/No	Specification data
Essential data	
4.1	Materials
4.1.5.2	<p>Materials from excavation is disposed of as follows: Suitable materials intended for re-use are stockpiled in an area provide the Contract Manager Material suitability is determined by the intended re-use of the material. Where temporary stockpiles hold materials intended for rehabilitation of ground, stockpiles that can deteriorate if exposed are protected against erosion and weathering. Unsuitable materials not intended for re-use are removed from the work site and disposed of at a location accepted by the Contract Manager. Materials are disposed of in accordance with local and national laws and regulations.</p>
4.2	Methods and procedures
4.2.1.1	All areas in which excavation is to take place or that are to be covered by terraces, banks or structures is cleared in accordance with the requirements of SANS 2001-BS1.
4.2.1.2	<p>Topsoil is conserved for later use in the following manner: Vegetation intended for re-use is removed to a location provide the Contract Manager and is neatly stacked and regularly watered and tended until required for replanting. Topsoil intended for re-use is stock-piled and/or spread in a location provide the Contract Manager</p>
4.2.1.3	The overburden is stripped and removed to depth of 300mm.
4.2.3	Surplus and unsuitable material are removed from the work site and disposed of at a location accepted by the Contract Manager. Materials are disposed of in accordance with local and national laws and regulations.
Additional Clauses	
BE1.A.1	<p>Design of Excavations: The <i>Contractor</i> is solely responsible for the design and installation of all temporary works to ensure the stability of the excavations. The <i>Contractor</i> provides his proposals to the Supervisor for acceptance before excavation work commences on site. The macro and micro stability of cuttings, excavation and embankment slopes and the related soil/rock deformations is analysed in accordance with the SAICE Code (2010). Design of cuttings, excavation and embankment slopes includes erosion protection of slopes, Soil deformation with respect to settlements due to consolidation, compression of soil structure, movements required to develop shear resistance, the consequence of sliding and squeezing, etc., are analysed.</p>
BE1.A.2	<p>Excavation Classification The <i>Contractor</i> uses any method he chooses to excavate any class of material, but his chosen method of excavation does not determine the classification of the excavation. The <i>Contractor</i> uses guidelines for excavation classification and methods set out by SANS 1200D Section 3.1.</p>
BE1.A.3	<p>The <i>Contractor</i> notifies the <i>Contract Manager</i> of his intention to excavate 3 days prior excavation for planned works, no excavation work to commence without the presence of the <i>Contract Manager</i>. The <i>Contractor</i> does not excavate before a method statement, excavation</p>

	permits, and underground services scans are submitted and accepted by the Contract Manager.
BE1.A.4	The effect of earthworks on neighbouring structures, services, etc., are analysed (for both short and long-term effects) and detrimental effects are avoided, or appropriate measures taken to safeguard the integrity of the item in question. Similarly, the effects of dewatering or disturbance of the existing geohydrological conditions because of earthworks on neighbouring structures, services, etc., are considered.

Concrete specification

Specification data associated with SANS 2001 CC1 – Concrete works (structural)

4.2.7	<p>The material requirements for grout are as follows: Cement complies with SANS 50196-1.</p> <ul style="list-style-type: none"> • Sand-cement grout <ul style="list-style-type: none"> ○ The grout has a minimum crushing strength of the concrete. The sand aggregate is capable of freely passing a filter mesh of 1.5 mm. • Non-shrink grout <ul style="list-style-type: none"> ○ A grout is regarded as non-shrink if its volume is not less than the initial volume, after hardening for 28 days. During this period, the test specimens shall have been completely protected against drying, evaporating, carbonation and exposure to temperatures outside the range 23 °C ± 3 °C. <p>The type and brand of non-shrink grout shall, after approval, be indicated on the drawings and/or specification for concrete work. In general, one of the following types of non-shrink grout are used:</p> <ul style="list-style-type: none"> • Cement-based non-shrink grout is not less than the strength of the concrete. • Special proprietary non-shrink or expansive grout is not less than the strength of the concrete.
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Grouting Characteristics

- Good flow characteristics
- Good bond to concrete
- Non-corrosive
- No segregation or bleeding
- To have at least 30 MPa of compressive strength at 28 days

Masonry wall

Specification data associated with SANS 2001 CM1 – Masonry walling

Clause/No	Specification Data
Essential data	
4.1	Materials

4.1.1.2	<ul style="list-style-type: none"> Burnt Clay masonry units complies with the requirements of SANS 227 and have the following properties: Class of unit: FBS Foundation brickwork: NFX Internal brickwork: NFP Face Brick: FBS Work size: 222 x 106 x 73mm Colour of the face units: <ul style="list-style-type: none"> Dark: Country Meadow Satin Light: Opal Satin Nature of the unit: Manufacturer's Specification Uniformity of colour and texture: Required Nominal compressive strength (non-facing): <ul style="list-style-type: none"> Foundation brickwork: NFX – 7.5 MPa minimum. Internal brickwork: NFP– 7.5 MPa minimum. Face Brick: FBS – 12.5 MPa Limit of water absorption: Refer to 4.7 of SANS 227 Limit of water soluble salts content: Refer to 4.7 of SANS 227
4.1.4.1	Sands that comply with the requirements of SANS 1090 are required.
4.1.6	Mortar plasticizers and set-retarder admixtures are permitted.
4.1.9.1.2	Brickforce are galvanised.
4.1.9.2.2	Rod reinforcement are galvanised
4.1.12.1	Only galvanised steel wall ties are used.
4.2	Mortar
4.2.1.2	Mortar plasticizers and set-retarder admixtures are permitted
4.6.3.1	Reference panels are required
5	Compliance with Requirements
5.1.1	The degree of accuracy shall be II
4.1.4.1	Sands that comply with the requirements of SANS 1090 are required.
Variations	

Acid resistant coating

The proposed product to be used shall have following characteristics:

- To resist Sulphuric acid & caustic.
- To resist effluent containing water with pH range of 1 up to 11.
- To be flexible enough to allow concrete movement without breaking or cracking.
- To be able to handle mechanical stresses, thermal shocks, and abrasion.

- Non-slip, non-corrosive, free-thaw resistance, antistatic, antibacterial, aesthetic and should have hygienic advantages.
- Life span guarantee of not less than 5 years.

Acid resistant coating product shall comply with the requirements in 240-106365693 - Standard for the External Corrosion Protection of Plant, Equipment and Associated Piping with Coatings.

Road Rehabilitation

- Interlocking bricks shall be 60mm thick of class 40/2.6 (compressive strength/Tensile splitting strength).
- Interlocking bricks shall comply with the requirements of SANS 1058.
- Damp proof membrane to be 250 microns.

SAFETY REQUIREMENTS

- Contractor's Safety File must be pre-approved by Duvha Safety Department.
- Contractor employees must complete Duvha Safety Induction Course before any work can be executed.
- Risk assessment and Pre-job brief shall be conducted by *Contractor's* Supervisor with all his employees. Copies shall be handed over to the client.
- No work shall be performed without a Permit to Work. Domestic installations are exempted.
- No work shall be performed without pre-arrangement with the project manager.
- Special care must be taken regarding people that might occupy the office while the installations are done.
- Any damage to the ceiling, walls, floors, paint work or other office equipment etc. shall be repaired by the *Contractor's* on own cost.
- All other spares, materials and safety equipment needed to do the work, shall be supplied by the *Contractor*.
- All required Personal protective equipment (PPE) must be worn all the time.
- All Eskom's and other safety rules must be adhered to all the time.

QUALITY 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 a week before planned works starts. 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 of 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* (Contract Manager 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* (Contract Manager and Quality Controller) and Eskom System Engineer and/ or Eskom QC.
- Provision for final acceptance/ releases approval signatures by the *Contractor* (Contract Manager and Quality Controller) Eskom System Engineer and/ or Eskom QC.

HANDOVER

Apart from any statutory data packages required, the Contractor also compiles a data package of the relevant drawings, test certificates, etc. to the Project Manager for acceptance. These include, but are not limited to:

- Document List.
- Instruction for Work/ Purchase Order.
- Approved and signed off ITP's, QCP's.
- Certificate of Compliance
- Material certificates
- Test certificate or reports
- Signed QCPs
- Notifications.
- Modifications.
- Concessions.
- Technical Queries, Engineering Responses, and communications with Project Manager/ Employer
- Non-conformance reports.
- As-built data and marked up drawings of the completed works upon handover.

Title	Date or revision	Tick if publicly available
<u>General Specifications:</u>		
Health and Safety requirements (Included in the SOW)	0	
Environmental requirements (Included in the SOW)	0	
Site regulations and access control (Included in the NEC ECSC3)		
<u>Technical specifications:</u> attached tech spec	0	

4. Constraints on how the *Contractor* Provides the Works

4.1 Meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Kick off meeting, implementation strategy	One off 60 minutes (Time to be announced by Project Manager)	Project Managers office	PM, System Engineer and contractor
Risk registers and compensation events	As and when required	Project Managers office	PM, System Engineer and contractor
Overall contract progress and feedback	Monthly on Monday at 09:00am	Project Managers office	<i>PM. Contractors' Manager</i>
Commissioning	Once off	Project Managers office and Site	PM. Contractors' Manager & Supervisor

- 2) Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works.
- 3) Records of these meetings shall be submitted to the Project Manager by the person convening the meeting within five days of the meeting.
- 4) All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting.
- 5) Such minutes or register as in point 4) shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the conditions of contract to carry out such actions or instructions.

4.2 Use of standard forms

NEC ECSC standard forms will be used by both parties in the administration of the contract

4.3 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;

- (add other as required)

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.

4.4 Records of Defined Cost

- 1) The Contractor may keep records of payment and assessments of compensation events if deemed necessary.

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

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

a. subcontracting

Preferred subcontractors

The Contractor shall make use of any supplier for sourcing of equipment, tools and material. Whatever that the contractor will use to execute works shall comply with the SABS.

Subcontract documentation, and assessment of subcontract tenders

- (1) The Contractor shall submit the proposed contract data for each subcontracting for acceptance to the Project Manager
- (2) The Contractor shall prepare subcontracting document as according to NEC contract.
- (3) The Contractor must inform the Employer's representative when intending to subcontract some of the works from the contract scope.
- (4) The Contractor shall not subcontract a contractor that has lower or higher level accreditation than him/her according to CIDB.

Limitations on subcontracting

- (1) The Contractor shall not subcontract more than 30% of the contract scope

Attendance on subcontractors

- (1) The Contractor shall in writing inform the Employer's representative about the subcontractor intentions for site visit.

4.6 BBBEE and preferencing scheme

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

4.7 Facilities to be provided by the Contractor

- The contractor should provide facilities they deem necessary in executing the work. This must be discussed with the Project Manager prior to commencement of work.
- The Contractor shall supplies all the necessary equipment and material required to execute the works, including portable ablution facilities and proper eating facilities for their employees.

- The provision of accommodation for Contractor's personnel shall be the responsibility of the Contractor.

Site services and facilities

a) Potable Water Supply

- Potable water is available at the existing points.

b) Electrical Power Supply

- Power is available at the existing points.

c) Toilet Facilities

- The Employer provides the Contractor access to existing toilet facilities.

d) Catering Facilities

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

e) Medical Facilities

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

f) Contractor's yard

- The Employer recovers the costs incurred, in the use of the above Employer's facilities, from the Contractor For the full duration of the works, the *Contractor* is responsible to keep the work area clean of any rubble, and to dispose all refuse to a registered dumpsite. There is no such dumpsite available at Duvha Power Station.
- All waste introduced and/or produced on Eskom's premises by the *Contractor* for this Contract, must be handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref.: ISBN0621 - 16296-5.

4.8 Title to material from excavation and demolition

- (1) The Contractor shall comply with Eskom Environmental procedure waste management procedure 32-245
- (2) The Contractor is responsible to keep the work area clean of any rubble.
- (3) All waste introduced and/or produced on the Employer's premises by the Contractor for this contract, is handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref: ISBN0621 - 16296-5.
- (4) The Employer will provide special colour coded bins for refuse disposal. The Employer will empty these bins.
- (5) The Contractor ensures that all workers under his control strictly adhere to the correct use of refuse bins:
Maroon bins: - Scrap metal only
White bins: - Lagging and general household rubbish
Yellow bins: - Ash, dust, coal dust and sand
- (6) For the full duration of the Works, the Contractor is responsible to keep the work area clean of any rubble, and to place all refuse into the bins provided.
- (7) Removal of scrap and waste, including concrete/ash/refractory material to a location within the Duvha Power Station security gates and/or the ash dams must be included in the Price Schedule or Bill of Quantities. This must be inclusive of labour and equipment i.e., forklifts spades, shovels, transport,
- (8) An Environmental Control Office (ECO) must be appointed to ensure that mitigation, and any corrective measures are implemented and adhered to.

- (9) Any work undertaken within the wetland must be completed within one month.
- (10) Construction should be undertaken during the dry season.
- (11) Disturbance footprint to be kept as small as possible (1 m beyond the perimeter of the terrace).
- (12) The wetland outside of the disturbance footprint must be demarcated as no-go zones.
- (13) No mixing or storing of concrete within the wetland or associated 50 m buffer.
- (14) Soils excavated from the fence foundations, within the wetlands, which are not required to backfill the hole, must either be removed or placed in such a way so as to not impede the flow.
- (15) Temporary site establishment and/or laydown areas to be located within existing disturbed footprints of the construction site and a minimum distance of 50 m from the wetland.
- (16) The Contractor shall comply with the Duvha Power Station section 21 I & (i) water uses General Authorisation for section 21 I & 21 (I) water uses, in terms of the national water act (act 36 of 1998) final report and the National Water Act (GN 509 of 2016).

The *Contractor* shall comply with the environmental criteria and constraints stated in this Work Information

4.9 Design by the *Contractor*

N/A

4.10 Cataloguing requirements by the *Contractor*

N/A

5. Requirements for the programme

- (1) The Contractor submits a programme within 1 week of the Contract Date.
- (2) The program shall be in Microsoft Projects format or Primavera
- (3) The programme indicates
 - i. The hour duration of each activity,
 - ii. The working calendar (number of work hours per day, days per week),
 - iii. The exact quantity of people per day
 - iv. All phases and interfaces

6. Services and other things provided by the *Employer*

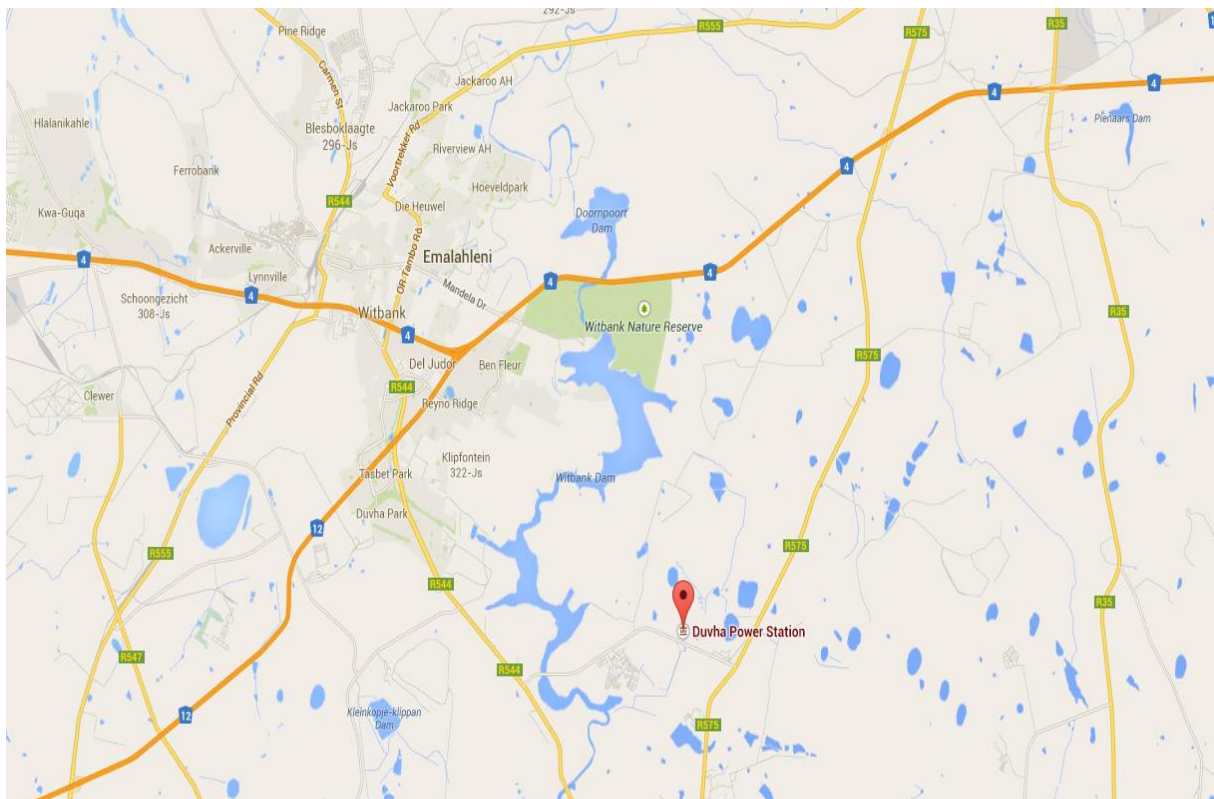
Item	Date by which it will be provided

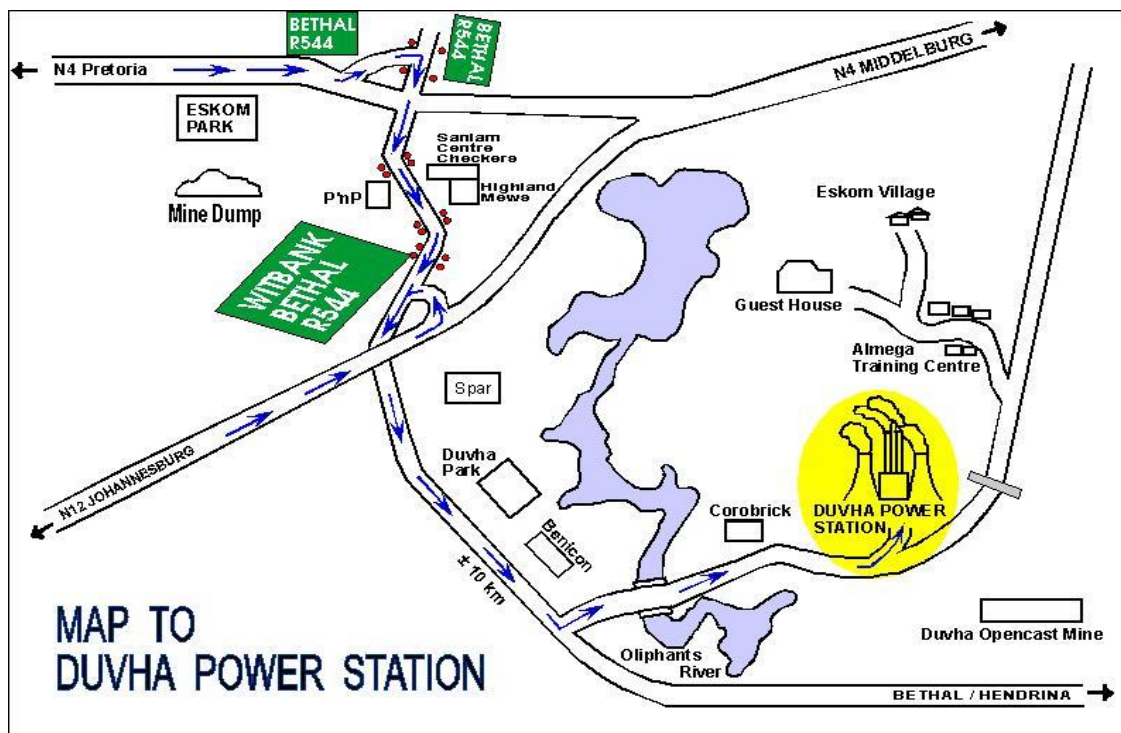
C4: Site Information

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

1. Site Location

Duvha Power Station is located approximately 15km from Emalahleni, 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)

1

Fig A



FIG B

4. Maintenance and Housekeeping

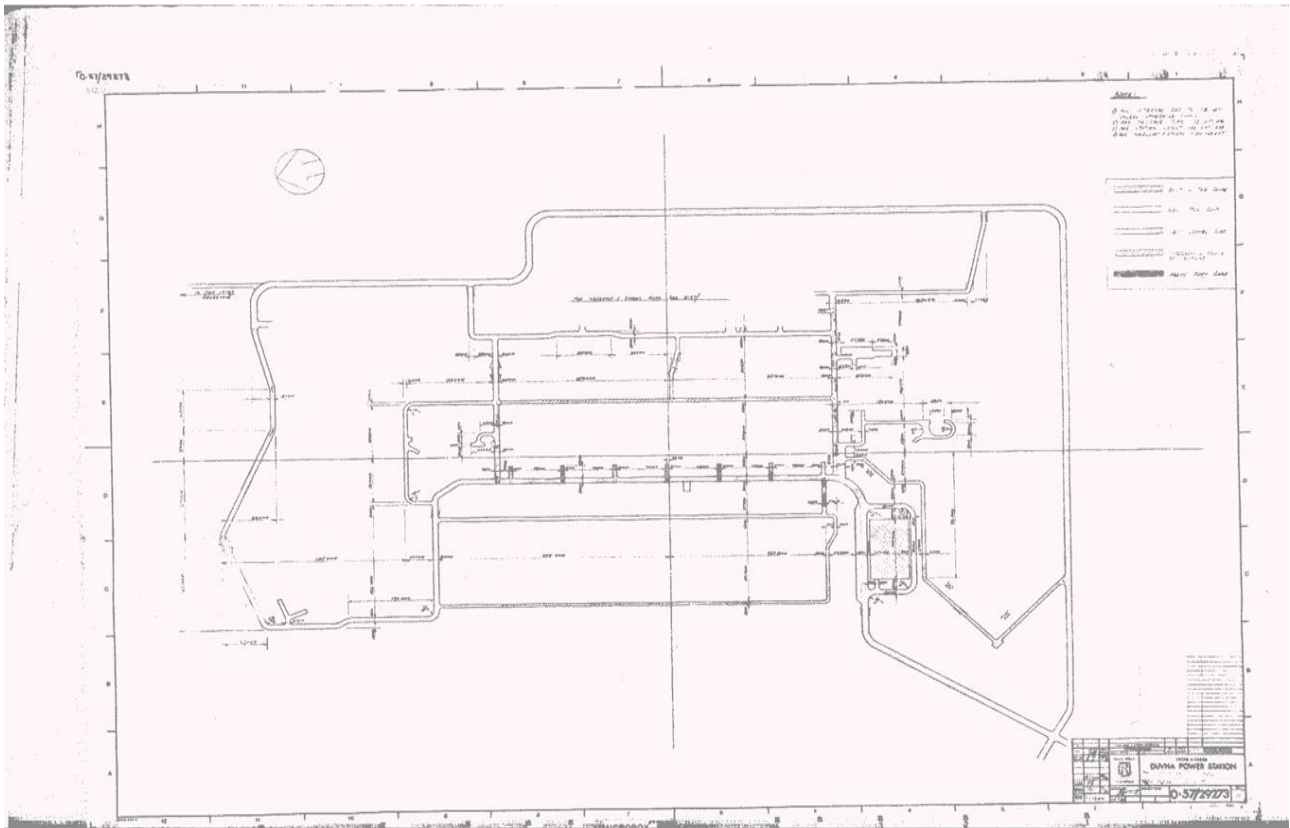
Maintenance of and within the Laydown Area and housekeeping of the Laydown and Working Areas will be the sole responsibility of the Contractor. All waste will be managed in accordance with Eskom Waste Management Procedure 32-245

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.