Eskom

NEC3 Engineering and Construction

Short Contract (ECSC3)

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

and

for **REMEDIAL WORKS AT DRAKENSBERG PUMPED STORAGE SCHEME**

Contents: Compiled in accordance with CIDB Standard for Uniformity in Construction Procurement (May 2010 amendments)

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Contract Manager

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:

REMEDIAL WORKS AT DRAKENSBERG PUMPED STORAGE SCHEME

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)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 Contract Data

Data provided by the *Employer*

Clause	Statement	Data
	General	
10.1	The *Employer* 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 *Employer*'s representative to whom the *Employer* in terms of clause 14.4 delegates his actions[1] is (Name):	**Rowan Francis**
	Address	**15 Pasita Street, Rosenpark, Durbanville, Cape Town, 7550**
	Tel No.	**TBC**
	E-mail address	**Franciro@eskom.co.za**
11.2(11)	The *works* are	**LIFT SHAFT:** **Maintenance Works consisting of sealing water leaks and replacing gutters and downpipes in the Lift Shaft. Inspection of dewatering and in-watering pipe supports, as well as cable racks** **Machine Hall:** **Maintenance Works consisting of establishing the drainage system on the roof of the machine hall cavern, repairing of damaged walls, cleaning and unblocking the drainage lines.** **WORKSHOP & STORES:** **Maintenance Works at various locations, consisting mostly of repainting and, to a lesser extent, removing redundant aircon units, bricking up and plastering voids, and applying a waterproofing product before painting in areas prone to water exposure.** **EXPLORATORY TUNNEL:** **Maintenance Works consisting of replacing corroded vertical and horizontal steel supports to the sewer pipe with new steelwork and replacing corroded light brackets and cable ladders with new steelwork.**
11.2(13)	The Works Information is in	**the document called 'Works Information' in Part 3 of this contract.**

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

11.2(12)	The Site Information is in	**the document called 'Site Information' in Part 4 of this contract.**
11.2(12)	The *site* is	**Drakensberg Pump Storage Scheme**
30.1	The *starting date* is.	**TBC (1st August 2026)**
11.2(2)	The *completion date* is.	**TBC (31st March 2027)**
13.2	The *period for reply* is	• **One (1) week**
40	The *defects date* is	**52 weeks after Completion**
41.3	The *defect correction period* is	**2 weeks**
50.1	The *assessment day* is the	**25th of each month.**
50.5	The *delay damages* are	**R2500 per calendar day up to a maximum of 10% of the Contract Value**
50.6	The retention is	**10% of Contract value**
51.2	The interest rate on late payment is	**0%**
80.1	The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer*'s 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 *Adjudicator* is	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see 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).**
93.2(2)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body**
93.4	The *tribunal* is:	**arbitration.**
	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**South Africa**

The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

The *conditions of contract* are the NEC3 Engineering and Construction Short Contract (April 2013)[2][3] and the following additional conditions Z1 to Z14 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.*

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*.

[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.

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 *Contractor* 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 *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractors or the Subcontractor's employees,

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

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

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*	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s insurance	The *Employer*'s certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s	The Defects Certificate has been issued

	insurance	
The *Contractor*'s 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 *Contractor*) arising from or in connection with the *Contractor*'s Providing the Works	**Loss of or damage to property** *Employer*'s property The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date where covered by the *Employer*'s insurance Other property The replacement cost **Bodily injury to or death of a person** The amount required by the applicable law	
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	

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 minir 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 Intellectual Property – Eskom owning Intellectual Property

"**Intellectual Property"**	means (a) patents, trade marks, service marks, rights in designs, trade names, trade secrets, know how, copyrights and topography rights, in each case whether registered or not; (b) applications for registration of any of them; (c) rights under licences and consents in relation to any of them; (d) all forms of protection of a similar nature or having equivalent or similar effect to any of them which may subsist anywhere in the world.
"Background Intellectual Property"	means any and all Intellectual Property rights that are not Foreground Intellectual Property, and are owned or controlled by the relevant party or licensed to the relevant party prior to or outside of the *works* but required for the purposes of the *works*.
"Foreground Intellectual Property"	means all Intellectual Property rights and other matter capable of being the subject of intellectual property rights that is conceived, first reduced to practice or writing or developed in whole or in substantial part in the course of the execution of the *works* and rights which are developed substantially as a result of the *works*. Any *works* that will be developed, changed, modified and/or improved specifically for the Purposes will be Foreground Intellectual Property. Any data or any other information relating to *Employer's* proprietary information generated from the use of the *Contractor's* Background Intellectual Property.

Z13.1 The *Contractor* retains ownership of all Background Intellectual Property rights made by or on behalf of the *Contractor* as part of the *works* in information or material it uses in carrying out the *works*.

Z13.2 All Foreground Intellectual Property rights, contained in any developed materials which are created by the *Contractor* or on behalf of the *Contractor*, for the purposes of and in support of the execution of the *works* (*Employer*'s IP) vest with the *Employer*.

Z13.3 Any data or any other information relating to *Employer's* proprietary information generated from the use of the *Contractor's* Background Intellectual Property, the copyright therein shall be owned by the *Employer*.

Z13.4 The *Contractor* acknowledges that all rights, title, and interest in and to the Foreground Intellectual Property that may result or originate from or be developed in execution of the *works* vests in the *Employer* and that the *Contractor* has no claim of any nature in and to the Foreground Intellectual Property.

Z13.5 The *Contractor* ensures that a copyright notice is incorporated or embossed or labelled on the Foreground Intellectual Property, where the *Employer* is reflected as the owner of the Foreground Intellectual Property.

Z13.6 The *Contractor* is obliged to provide Foreground Intellectual Property manufacturing documents, designs, processes and/or specifications to the *Employer* on the *completion date.*

Z13.7 The *Contractor* procures that each Sub-*Contractor* executes all and any *works*, and takes all and any other actions as may be required, in order to give effect to this Agreement.

Z13.8 The *Employer* retains all Background Intellectual Property rights in all documents made by or on behalf of the *Employer* including all documents and requirements provided prior to or during the execution of the *works*. The *Contractor* does not, without the written consent, of the *Employer*, copy, use or issue to a third party any of the *Employer's* Background Intellectual Property documents and requirements except for the purposes of executing the *works*.

Z13.9 Either party procures that any third party executes confidentiality undertakings not to disclose to any other third parties, any of the *Employer*'s Background Intellectual Property and IP documents and requirements at all, in respect of the *Employer*, or the Background

Intellectual Property, in respect of the *Contractor*.

Z13.10 Third Party Claims:

Z13.10.1 In the event of any claims being made or actions brought against the *Employer*, on the ground that the *Contractor* infringed any patent, trade mark or copyright, the *Contractor* is notified thereof and at its own expense, conducts all negotiations in consultation with the *Employer* for the settlement of the claim and litigation that may arise from such alleged infringement, provided that the *Employer* will not bear any financial burden or losses.

Z13.10.2 Save where the *Contractor* fails to take over the conduct of the negotiation or litigation within a reasonable time of the notification of the alleged infringement, the *Employer* does not make any admission which might be prejudicial to the *Contractor*'s position. The *Employer*, at the request and the cost of the *Contractor* affords it all reasonable technical assistance that the *Employer* is able to provide for the purpose of contesting any such claim or action.

Z13.10.3 Should it be held in any such action that any such protected rights have been infringed, as definitely stated by a judgment of the court before which the action is brought, the *Contractor*, at its own expense and in consultation with the *Employer*, either:

a. procures for *Employer* the right to continue to use the affected item or design, or
b. replaces the said affected item or design with a non-infringing item, or
c. provides a design of equivalent quality or modify such affected item or design so as to make it non-infringing without affecting the quality.

Z13.10.4 Notwithstanding anything contained in this contract, the foregoing sets forth the entire responsibility of *Contractor* with respect to claims relating to infringement.

Z13.10.5 Where it is alleged that the *Employer* has committed an infringement as intended vis-à-vis the *Contractor* as set out in the third party intellectual property infringement clause, the *Employer* has the same rights and obligations as the *Contractor*, mutatis mutandis, as regards such alleged infringement.

Z13.10.6 The *Contractor* herewith indemnifies the *Employer* and undertakes to keep the *Employer* indemnified against all claims of whatsoever nature, real or imagined, which may be made against the *Employer* arising from the infringement of any third party intellectual property rights.

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 *Employer*'s Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.

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 *Contractor* 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

The Price List is as follows.

Item no.	Description	Unit	Quantity	Rate	Price
1	**PRELIMINARY & GENERALS**				
1.1	Contractual and safety documentation, including Health and Safety File, risk assessments, method statements, QCP/ITPs, programme, and initial submittals required before starting the works.	1	sum		
1.2	mobilisation and site establishment, including transport of supervision, small plant, tools, temporary storage setup, signage, barriers and access arrangements necessary to commence the works, excluding items measured elsewhere	1	sum		
1.3	Demobilisation, removal of temporary facilities, final site clearance and making good on completion	1	sum		
1.4	Handover documentation, including as-builts, completion dossiers and close-out submissions required by the Works Information	1	sum		
1.5	Site supervision and contract management for the duration of the works	7	Month		
1.6	Ongoing compliance costs for health, safety and environmental management during execution of the works	7	Month		
1.7	Temporary site facilities and running costs not measured elsewhere, including office consumables, communications and general attendance	7	Month		
1,8	Accommodation and subsistence for supervisory staff working away from home base	7	Month		
1.9	Light transport for supervisory and administrative attendance to the site, excluding transport already deemed included in measured work rates	7	Month		
2	**LIFT SHAFT SCOPE**				
2.1	Remove all gutters all around the circumference of the lift shaft	40	No.		
2.2	Remove all the downpipes in the lift shaft along the length of the lift shaft	192	m		
2.3	Install aluminium epoxy-coated gutters with a 150x150x140x1mm section in the lift shaft, including supports at every 1,5m interval. Each gutter shall have a circumference of the	900	m		

Item no.	Description	Unit	Quantity	Rate	Price
	shaft.				
2.4	Supply and install 100 mm wide bituthene membrane or similar approved waterproof membrane to joints / interfaces associated with the gutter installation	900	m		
2.5	Install a minimum 110 mm aluminium epoxy-coated downpipes in the lift shaft, including clamps at 3 m intervals	200	m		
2.6	Carry out detailed abseiling inspection of the lift shaft concrete surfaces, prepare defect report and method statement, and repair and seal water sprays, seepage points, major cracks and other concrete defects as accepted	1	Sum		
2.7	Inspect the ingress of water in the lift shaft and produce the photographic report	1	Sum		
2.8	Inspect the in-watering and dewatering pipe supports and the cable racks, and submit a photographic report	1	Sum		
2.9	Repair corroded galvanised carbon steel handrails in the lift shaft, including surface preparation, painting, and replacement of bolts and nuts where required	400	m		
2.10	Replace heavily corroded galvanised mild steel tubular handrails, complete with corrosion protection/paint system	100	m		
2.11	Drilling of 50mm diameter weepholes through the 0,5m concrete shaft and installing drainage pipes directed to the gutters	100	no.		
2.11	**Potable Water Pipe & Tank**				
2.12.1	Supply of a spare Grundfos water pump model PN-SN A-96516671-10000519	1	No.		
2.12.2	Supply and install a 250m-long PN25, 50mm-diameter HDPE pipe, buttwelded, including its supports and fixing to concrete.	m	250		
2.12.3	Cleaning and applying a Solvent-Free Epoxy Coating for Potable Water inside the 2m^3 buffer tank.	m^3	2		
2.12.4	Provision of a temporary water supply solution while the works on the tank & pipe are carried out	1	Sum		
3	**Machine Hall Cavern**				
3.1	Assess water ingress and propose a drainage system to intercept, contain and manage seepage water in the Machine. Hall Cavern, including a detailed report and marked-up proposal	1	Sum		

Item no.	Description	Unit	Quantity	Rate	Price
3.2	Implement accepted drainage/interception measures and connect drainage to the existing station drainage system	100	m		
3.3	Repair concrete defects in the Machine Hall Cavern, including cracks, delaminated areas, local making good, and preparation for repainting	1	Sum		
3.4	Repaint the repaired areas in the Machine Hall Cavern to match the existing	1	Sum		
4	**WORKSHOP & STORES**				
4.1	**Removal of air conditioning units and reinstatement of the brick wall**				
4.1.1	Remove redundant air conditioning units	9	No.		
4.2	**Brickwork**				
4.2.1	230 mm wide collar-jointed wall to close voids – internal face plastered and painted, R.O.K. 14 MPa bricks, external face facebrick to match existing, namely plum white chip rockface concrete facebricks. Rate to include brickforce at every course, Class II mortar and paint to the internal face to match the existing	4	m^2		
4.3	**Waterproofing**				
4.3.1	Hack off defective plaster where required, prepare the substrate and apply a waterproof plaster system, including Sika-1 waterproofing admixture to mortar at the paint store.	200	m^2		
4.3.2	Apply Sikaflex-Pro 2HP around all doors, internally and externally, in accordance with drawing 0.48/5283	355	m		
4.4	**Carpentry and Joinery**				
4.4.1	Doors and Frames				
4.4.1.1	Remove damaged external doors, including removal of hinges/fixings and making good to openings as required	4	No.		
4.4.1.2	Supply and install weatherproof doors as per drawing 0.48/5283, complete with locks and all accessories. Rate to include tying in of doorframe and all jointing/nosing required. Applicable to door D1, D4, D9 & D10	4	No.		
4.5	**Painting**				
4.5.1	Prepare and apply one primer coat, one undercoat and two coats of exterior quality PVA paint				
4.5.1.1	Internal plastered walls, colour to match existing	205	m^2		
5	**EXPLORATORY TUNNEL PIPE SUPPORTS**				

Item no.	Description	Unit	Quantity	Rate	Price
	REPLACEMENT (Refer to drawings 18.48/6741-1; 18.48/6741-2; 18.48/6741-3)				
5.1	**Survey**				
5.1.1	Survey existing sewer pipe and light cables and existing as-built condition, including surveys before, during, and after construction for level control and final verification	1	Sum		
5.2	**Removal of existing work**				
5.2.1	Remove existing corroded vertical Unistrut members and associated steelwork supporting the sewer pipe, and cart away to the scrapyard area adjacent to the sewer treatment plant	50	No		
5.2.2	Remove existing corroded horizontal Unistrut members of varying lengths and associated steelwork supporting the sewer pipe	200	m		
5.2.3	Temporarily support the sewer pipe until installation of new steelwork using vertical and horizontal propping	200	m		
5.2.4	Remove existing corroded brackets and associated steelwork supporting lights and light cables	6	No		
5.2.5	Remove existing corroded cable ladder members and associated steelwork supporting lights and light cables	80	m		
5.2.6	Temporarily support lights and light cables until installation of new steelwork using vertical and horizontal propping	20	m		
5.2.7	Clean existing cable ladder members and associated steelwork supporting lights and light cables by removing all white stains present	60	m		
5.2.8	Isolate, protect, reconnect and test existing lights and light cables as necessary to execute the works safely	1	Sum		
5.3	**Supply and Fabrication**				
5.3.1	Preparation of shop detail drawings	1	Sum		
5.3.2	**Supply and fabrication of steelwork (see Drawings 18.48/6471-1; 18.48/6471-2; 18.48/6471-3) complete with all necessary cleats, brackets, gussets, packs, and hot dip galvanised, etc., as follows:**				
	a) Using steel to Grade 350WA (sewer pipe steelwork)				
5.3.2.1	150x150x6.0mm Base plate with equal-angle welded to the base plate to be procured as an off-the-shelf item.	50	No		

Item no.	Description	Unit	Quantity	Rate	Price
5.3.2.2	5.0mm thick shaped gusset plate bolted to Unistrut channels	0.06	t		
5.3.2.3	41x41x2.5mm Vertical Unistrut channel	0.06	t		
5.3.2.4	41x41x2.5mm Horizontal Unistrut channel	0.6	t		
	b) Using steel to Grade 350WA (light & light cable steelwork)				
5.3.2.5	Steel bracket matching existing brackets or a similar approved.	6	No		
5.3.2.6	Cable ladder supporting lights and light cables matching existing or similar approved	80	m		
5.4	**Delivery**				
5.4.1	Delivery of steelwork included under items 5.3.2.1 to 5.3.2.6 – normal loads	0.8	t		
5.5	**Erection**				
5.5.1	Offloading, stacking on site, and erection of steelwork are included under items 5.3.2.1 to 5.3.2.6	0.8	t		
5.6	**Hot dip galvanised Erection Bolts and Nuts**				
5.6.1	Supply, deliver to the site and store as follows:				
5.6.1.1	Grade 4.4 bolts	0.018	t		
5.6.1.1	Grade 8.8 nuts	0.007	t		
5.7	**Holding-down bolts and nuts**				
5.7.1	Supply, deliver to and stack on site as directed for building in by contractor, as follows:				
5.7.1.1	M12 FIS A hot dip galvanised grade 8.8 bolts epoxied using FIS EM epoxy mortar 110mm deep as per Section 1-1 drawing no. 18.48/6471-2 (or similar approved)	200	No.		
5.7.1.2	M12 FIS A hot dip galvanised grade 8.8 bolts epoxied using FIS V 360 chemical mortar 150mm deep as per Section A-A drawing no. 18.48/6471-3 (or similar approved)	14	No.		
5.8	**Testing**				
5.8.1	Weld testing, NDT and related testing required by the Works Information	1	Sum		
5.9	**Grouting**				
5.9.1	Grouting in terms of project specification: 20mm non-shrinkage grout, 40 MPa as per dwg. no. 18.48/6471-1	2.1	m^2		
6	**As built Information**				
6.1	As built drawings	1	Sum		
7	**Equipment and Materials to Perform Inspection**				
7.1	Equipment to perform inspection. Rate	1	Sum		

Item no.	Description	Unit	Quantity	Rate	Price
	includes testing, certification and safe access.				
7.2	Rope access to perform the works	1	Sum		
7.3	Provide lighting for inspections for the duration of the works, including power supply where required	1	Sum		
8	**DISPOSAL OF WASTE MATERIALS**				
8.1	Disposal of waste materials to the appropriate disposal site, excluding materials expressly stated to be carted to the Employer's scrapyard area	1	Sum		
	The total of the Prices (excluding VAT):				

C3: Scope of Work

C3.1 Works Information

This Works Information sets out the *Employer's* requirements for the execution and completion of the Works under this Contract. The *Contractor* must Provide the Works strictly in accordance with this Works Information, the Conditions of Contract, the Pricing Data, and the Site Information.

The Works Information defines the scope, standards, constraints, and obligations applicable to the *Contractor*. No requirement shall be implied from information not expressly stated in the Contract, and the *Contractor* shall not rely on assumptions, omissions, or interpretations inconsistent with this Works Information.

1. Description of the works

1.1 Purpose of the Works

a) The *Employer* has identified the need to carry out remedial maintenance works at various areas of the Drakensberg Pumped Storage Scheme (DPSS) following inspections, condition assessments, and operational impacts arising from deterioration, corrosion, and water ingress affecting existing underground and surface infrastructure.

b) The primary areas identified for remedial works include:
- The Lift Shaft
- The Machine Hall Cavern
- The Workshop and Stores Building; and
- The Exploratory Tunnel.

c) The identified defects and deficiencies have resulted in reduced functionality, adverse working conditions, increased operational costs, and risks to the durability, safety, and serviceability of the affected infrastructure. The purpose of the Works is to address these defects and restore the affected assets to a condition suitable for continued safe, reliable and efficient operation.

1.2 Existing Site Conditions

1.2.1 Lift Shaft

a) Areas within the lift shaft are currently experiencing water ingress through concrete surfaces, resulting in:
- Isolation of the lifts;
- An unfavourable underground working environment;
- Increased reliance on vehicular access to underground areas leading to higher operational costs and a larger carbon footprint.

b) The lift shaft has the following approximate dimensions:
- Concrete thickness: 0.5 m
- Internal diameter: 5.8 m
- Shaft length: approximately 192 m

c) The water ingress has also contributed to corrosion of steel components, including handrails, pipe supports, and associated services within the shaft.

1.2.2 Machine Hall Cavern

a) Water ingress has been identified within the Machine Hall Cavern, originating primarily from the cavern roof and other service penetrations.

b) Due to an inadequate drainage system, seepage water accumulates and ponds on the floors of the Machine Hall Cavern, resulting in:
- Deterioration of concrete surfaces;
- Cracking, delamination, and degradation of finishes;
- Increased maintenance and operational risk.

c) The approximate dimensions of the Machine Hall Cavern are:
- Width: 16.3 m
- Height: 20.1 m
- Length: 194.8 m

1.2.3 Workshop and Stores Building

a) The Workshop and Stores Building requires remedial works due to deterioration and damage affecting building elements, including:
- Redundant air-conditioning units;
- Damaged external doors;
- Internal wall finishes within the Paint Store are affected by moisture ingress.

1.2.4 Exploratory Tunnel

a) Structural steelwork supporting a sewer pipeline within the Exploratory Tunnel is experiencing severe corrosion, predominantly affecting the lower portions of vertical elements. This condition is likely associated with periodic flooding of the tunnel and ongoing water seepage through the tunnel walls.

b) In addition, steel brackets and cable ladders supporting lighting systems and cables have deteriorated due to prolonged exposure to moisture.

c) The integrity of existing services must be preserved during the execution of the Works.

1.3 Scope and Nature of the Remedial Works

The Works comprise inspection-driven remedial and refurbishment works to existing infrastructure, rather than new construction. The *Contractor* must allow for working within existing structures, in restricted-access areas, and within an operational power station environment.

The *Contractor* must note that:

- the works are not fully predefined,
- remedial interventions are subject to inspection findings, and
- execution is strictly controlled through instruction and acceptance by the *Employer's Representative*

The Contractor shall not undertake any repair, replacement, or remedial activity without prior instruction or acceptance by the Employer's Representative.

No payment is made for any work executed outside of the instructed or accepted scope.

Remedial works shall be limited to the minimum extent necessary to address identified defects. Localised repairs shall be undertaken in preference to full replacement unless otherwise instructed. Replacement of complete elements is not permitted without prior written instruction from the Employer's Representative.

Measurement shall be based on actual quantities executed, verified prior to execution, and accepted by the Employer's Representative. No payment is made for work exceeding the instructed or accepted extent.

The Works include, but are not limited to, the following activities:

1.3.1 Lift Shaft Works

a) Abseiling inspection of the lift shaft, including preparation and submission of a detailed inspection report identifying civil defects.
b) Repair of concrete defects, including sealing of water sprays, cracks, and other identified defects;
c) Drilling of weepholes at appropriate intervals to relieve pore water pressure;
d) Removal of all existing gutters and downpipes;
e) Installation of new epoxy-coated aluminium gutters and downpipes;
f) Inspection of cable racks, in-watering and de-watering pipe supports, with submission of an inspection report;
g) Cleaning and coating of the potable water tank within the lift shaft;
h) Replacement of the water pipeline from the lift shaft tank to the surface tank;
i) Provision of a spare high-lift pump;
j) Repair and corrosion protection of handrails, or replacement of heavily corroded handrails, as instructed by the Supervisor.

1.3.2 Machine Hall Cavern Works

a) Assessment of water ingress within the Machine Hall Cavern, particularly through the roof and services, and submission of a detailed inspection report;
b) Design, proposal, and implementation of water interception and drainage measures to manage seepage water;
c) Direction of intercepted water to the existing station drainage system, draining to the main drainage gallery;
d) Repair of concrete defects, including cracks and delaminated areas;
e) Repainting of repaired concrete surfaces.

1.3.3 Workshop and Stores Works

a) Removal and disposal of redundant air-conditioning units;
b) Brick infill of voids left by removed air-conditioning units;
c) Internal brickwork to be plastered and painted to match existing finishes;
d) External brickwork to be face brick to match existing construction;
e) Removal and replacement of damaged external doors with doors matching the existing ones;
f) Application of waterproofing products to affected areas within the Paint Store prior to repainting to match existing finishes.

1.3.4 Exploratory Tunnel Works

a) Survey of the existing as-built condition of the sewer pipeline and lighting cables before, during, and after construction;
b) Removal and replacement of corroded structural steel pipe supports (vertical and horizontal);
c) Fabrication and installation of new pipe supports to match existing as far as practicable, subject to material availability;
d) Removal and replacement of corroded light brackets and cable ladders;
e) Isolation of cables as required to execute the Works safely;
f) Replacement steelwork to receive hot-dip galvanising protective coating;
g) Execution of all works in a manner that preserves the integrity of existing services and surrounding structures.

2. Drawings

The following drawings are issued as as-built information and are provided for information purposes only**:**

Drawing number	Revision	Title
0.48/636	**7**	**Lift shaft general arrangement**
0.48/1042	**0**	**Details of false ceiling in machine hall portal frame construction**
0.48/179	**-**	**Machine Hall Isometric Arrangement**
0.48/2621	**2**	**Lift lobby level 1911.50**
0.48/1198	**0**	**Lift Shaft Cable Servitude**
0.48/4842	**-**	**Power station complex general arrangement at approx. 1184,00 level**
0.48-4847-2	**-**	**Power station complex sections 2of2**
0.48-4846-1	**-**	**Power station complex sections 1of2**
0.48/4071	**4**	**Drainage sump pump arrangement**
0.48/890	**4Z**	**Lift Shaft Platform Arrangement**
0.48/462	**SHT 0 Rev 13**	**Drainage and Dewatering pipework**
0.48/187	**4**	**Arrangement of services station lift shaft**
0.48/5280	**1**	**Workshop & Stores Plan**
0.48/5281	**1**	**Workshop & Stores Sections**
0.48/5282	**2**	**Workshop & Stores Elevations**
0.48/5283	**2**	**Workshop & Stores Building Door Schedule**
0.48/5285	**1**	**Workshop & Stores Building Schedule of Finishes**
0.48/5292	**2**	**Workshop & Stores Building Foundation and Surface Bed Concrete Layout and Details**
18.48/6471-1	**0a**	**Exploratory Tunnel Pipe & Cable Supports - Layout**
18.48/6471-2	**0a**	**Exploratory Tunnel Pipe & Cable Supports – Assembly & Details**
18.48/6471-3	**0a**	**Exploratory Tunnel Pipe & Cable Supports – Assembly & Details**

The *Employer* does not warrant the accuracy, completeness, or suitability of the drawings for construction purposes.

The *Contractor* shall verify all dimensions, levels, falls, interfaces, and existing conditions on Site prior to commencing the Works and shall allow for all necessary adjustments required to execute the Works.

The *Contractor* shall be deemed to have satisfied itself as to the nature and extent of the existing conditions and the constraints associated with working on existing structures, including any irregularities or deviations from the drawings.

The *Contractor* shall promptly notify the *Employer's Representative* of any discrepancies, ambiguities, or conflicts between:

- the drawings,
- the Works Information, and
- actual site conditions.

The *Contractor* shall not proceed with affected work until such discrepancies have been resolved or instructions issued by the Employer's Representative.

Acceptance of drawings, clarifications, or instructions by the *Employer's Representative* does not relieve the Contractor of its responsibility for the correct execution of the Works.

No additional payment or extension of time is granted for any errors, omissions, or discrepancies in the drawings or for any failure by the *Contractor* to verify site conditions prior to execution

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3. Specifications

3.1 Lift Shaft Remedial Works

The *Contractor* must execute remedial works in the lift shaft to address water ingress, corrosion, and deterioration of associated services and components.

All access to the lift shaft, including abseiling activities, shall be carried out in accordance with approved method statements and applicable safety requirements. The *Contractor* shall be responsible for all temporary works, access systems, and safety measures required to execute the Works

The scope includes, but is not limited to, the following:

3.1.1. Water Ingress Remediation and Weepholes

a) The *Contractor* must carry out a detailed abseiling inspection of the lift shaft concrete surfaces to identify areas of water ingress and seepage, including areas not accessible from staircases.

b) A detailed inspection report must be submitted to the *Employer's Representative*, identifying:
- the locations and extent of water ingress,
- observed defects in the concrete surfaces,
- and a proposed remedial approach.

c) No repair works will commence prior to acceptance of the proposed remedial approach.

d) Remedial works must include, as a minimum:
- sealing and repair of excessive groundwater seepage through the concrete,
- cleaning of concrete surfaces to remove efflorescence, calcium deposits, and contaminants prior to repair,
- drilling of 50 mm diameter weepholes through the concrete shaft at locations of water ingress.
- Additional repairs of defects identified as recorded in the *Contractor's* detailed inspection report

e) Weepholes must
- be drilled on all four sides of the shaft per level where ingress is identified,
- be fitted with a 90-degree outlet to direct water into gutters,
- be provided in sufficient quantity, with allowance for approximately 100 weepholes in total The number of weepholes shall be determined based on actual site conditions and confirmed through inspection and acceptance by the *Employer's Representative*. The stated quantity is indicative only and does not define the extent of the Works.

f) The *Contractor* must submit all repair materials and specifications for acceptance prior to implementation

3.1.2. Replacing Gutters and Downpipes

a) All existing gutters and downpipes within the lift shaft must be removed and replaced.

b) New gutters must:
- be aluminium, epoxy-coated for corrosion protection to C5 environmental classification in accordance with the Aluminium Federation of South Africa guidance,
- have a nominal section size of 150mm × 150mm × 140mm × 1 mm, unless an alternative size is proposed and accepted,
- follow the circular geometry of the lift shaft and be installed with a minimum fall of 1:250.

c) Downpipes must:
- have a minimum diameter of 110 mm,
- drain from each gutter level individually (no continuous downpipe),

- discharge into the existing drainage system, ultimately draining to the drainage gallery.

d) Gutters must be installed at:
   - every horizontal construction joint along the shaft, and
   - additional locations where notable leakage occurs, as instructed by the *Employer's Representative*.

e) The interface between gutters and concrete surfaces shall be sealed to prevent seepage water from bypassing. A 100 mm-wide bituminous membrane (or an accepted alternative) shall be used to ensure smooth water flow into the gutters.

f) Where vertical cables obstruct installation, open HDPE or similar gutters shall be installed to direct seepage water into the aluminium gutter system.

3.1.3. Repairs to Handrails

a) Corroded handrails must be repaired or replaced as required.

b) Works must include:
   - surface preparation by removal of corrosion to sound metal,
   - spot repairs where corrosion is localised,
   - replacement of severely corroded sections with tubular mild steel handrails,
   - application of corrosion protection coatings.

c) New or repaired handrails must match the existing in form and be painted in the black-and-yellow safety colours. Paint specifications must be submitted for acceptance prior to application.

3.1.4. Drainage and dewatering pipe support

a) The *Contractor* must inspect the condition of six (6) DN250 dewatering pipelines and their spring-loaded pipe supports within the lift shaft, extending from the drainage gallery (approx. level 1154 m) to level 1297 m.

b) The inspection, as a minimum, must include:
   - bolts,
   - springs,
   - hangers,
   - channel beams,
   - corrosion protection condition.

c) A photographic report must be submitted showing examples of:
   - the most severely corroded supports,
   - the best condition supports,
   - with levels clearly indicated.

d) Pipe supports are spaced at approximately 2–3 m intervals, resulting in an estimated 300–360 supports. The report will form the basis for the scoping and execution of subsequent remedial works, subject to the Employer's Representative's acceptance.

e) No remedial work shall be undertaken until the inspection findings and proposed scope of work have been accepted by the *Employer's Representative*.

3.1.5. Cable racks

a) The Contractor shall inspect cable racks and support systems throughout the lift shaft, from the drainage gallery to the surface building.

b) The inspection report shall focus on:
- cable tray anchors,
- trays,
- strapping and support systems.

c) The photographic report shall provide representative examples of the worst and best conditions observed and will be used to determine required remedial actions.

d) No remedial work shall be undertaken until the inspection findings and proposed scope of work have been accepted by the *Employer's Representative*.

3.2. Machine Hall Cavern Remedial Works:

a) The *Contractor* must execute remedial works to manage water ingress and deterioration within the Machine Hall Cavern.

b) The scope includes:
- installation of aluminium gutters (nominal 150 × 150 × 140 × 1 mm) along approximately 100 m of the cavern roof,
- establishment of an effective drainage system directing collected water to the existing station drainage system,
- interception and controlled drainage of seepage water from cavern walls,
- replacement of damaged or corroded gutters and drainage pipes,
- flushing and cleaning of all groundwater drainage systems across all cavern levels.

c) Areas affected by seasonal water ingress, including delaminated paint, efflorescence, calcification, algae, or mould, shall be cleaned, repaired, and repainted.

d) Where evidence of reinforcement corrosion is identified, the Contractor shall:
- expose affected reinforcement,
- clean to sound steel,
- apply re-passivating coating,
- reinstate concrete using an accepted low-shrinkage repair mortar.

e) Repair methodologies and material specifications must be submitted for acceptance prior to execution

3.3. Workshop and Stores Remedial Works

All finishes shall match existing in appearance and quality unless otherwise instructed. Any deviation shall be subject to acceptance by the Employer's Representative.

3.3.1. Removal of aircon units:

a) Redundant air-conditioning units must be removed, and all loose or damaged surrounding brickwork shall be carefully removed.

3.3.2 Bricking up void:

a) Brick infill must be constructed to match existing construction.

b) Materials and workmanship must comply with:
- SANS 50197 (cement),
- SANS 1090 (sand),
- ASTM C494 (admixtures),
- SANS 523 (lime),
- SANS 227 (face bricks),
- SANS 2001-CM1 (masonry).

c) Mortar must be Class II, mixed at 1:6, and brick force must be installed at every course.

d) Bricks must have a minimum compressive strength of 14 MPa and water absorption not exceeding 7%.

3.3.3. Internal plastering of new brickwork:

a) All new plastering works must be executed to match existing finishes in thickness, alignment, texture, and appearance.

b) Plastering must:
- comply with SANS 2001 and applicable industry standards;
- be applied to properly prepared substrates free of loose material, dust, efflorescence, and contaminants;
- be applied in layers not exceeding 10 mm per coat;
- incorporate fibre-mesh reinforcement where plaster thickness, chasing, or substrate condition poses a risk of cracking.

c) Plastered surfaces must be:
- plumb, straight, and flush with adjacent existing plaster;
- free of cracks, hollows, delamination, or surface defects.

d) Painting must:
- only commence once plaster has adequately cured and moisture levels are acceptable;
- include appropriate primers compatible with the substrate;
- consists of a minimum of two coats of approved paint;
- match existing colour, finish, and sheen unless otherwise instructed.

e) All paint and primer specifications must be submitted for acceptance prior to application.

f) Plastering and painting works must be inspected and accepted by the *Employer's* Representative prior to progression to subsequent activities.

3.4. Replacing damaged doors within the Workshop and Stores:

a) All damaged doors within the Workshop and Stores must be removed and replaced.

b) Replacement doors must:
- match existing doors in size, appearance, and functional performance;
- be installed plumb, level, and square;
- operate freely without binding or misalignment.

c) Existing frames may be retained where they are serviceable and compatible with the replacement doors. Where frames are damaged or unsuitable, they must be repaired or replaced.

d) All joints between doors, frames, and surrounding construction shall be sealed using Sikaflex-Pro 2HP or an accepted equivalent.

e) Completed installations must be inspected and accepted by the *Employer's* Representative.

3.5. Waterproofing and repainting of defective paint in the paint store:

Areas within the Paint Store exhibiting defective paint and plaster due to moisture ingress must be subjected to waterproof remedial works prior to repainting

3.5.1. Waterproof Plastering of internal brickwork:

a) All defective paint and plaster must be removed to expose a sound substrate. The exposed substrate must be adequately prepared to ensure effective bonding of the new plaster system.

b) Waterproof plastering must be carried out using a cementitious plaster incorporating a liquid waterproofing admixture, such as Sika-1 or an accepted equivalent, suitable for internal masonry exposed to moisture.

c) The waterproof plaster system must:
- Be applied in multiple coats as required to achieve a dense, waterproof render;
- Limit individual coat thickness to prevent shrinkage and cracking;
- Provide a sound, laitance-free finish suitable for subsequent painting;
- Be applied strictly in accordance with the manufacturer's published specifications.

d) The *Contractor* must submit the proposed waterproof plaster system and material data sheets for acceptance prior to execution.

3.5.2. Internal painting of newly plastered brickwork:

a) Painting must only commence once the waterproof plaster has adequately cured and moisture testing confirms suitability.

b) Painting works must include:
- cleaning of surfaces to remove dust, grease, and loose material;
- application of an approved plaster primer, such as Dulux Plaster Primer or an accepted equivalent;
- application of a minimum of two coats of approved acrylic paint, such as Dulux Trade 100 Matt Acrylic or an accepted equivalent.

c) Paint colour, finish, and product selection must be submitted for acceptance prior to application.

d) Completed painting works must be free of defects, overspray, staining, and uneven finish and must be accepted by the *Employer's Representative* prior to handover.

3.6 Exploratory Tunnel – Structural Steel Remedial Works:

a) The Contractor must carry out remedial works within the Exploratory Tunnel to address corrosion and deterioration of structural steel components supporting the sewer pipe, lighting brackets, and cable ladder systems.

b) The Works include, but are not limited to, the removal and replacement of corroded:
- steel Unistrut vertical columns and horizontal members supporting the sewer pipe; and
- steel brackets and cable ladders supporting lights and light cables.

c) The *Contractor* must execute the Works in a manner that preserves the integrity, alignment, and functionality of all existing services and surrounding structures.The *Contractor* shall be responsible for ensuring that all existing services remain operational and undamaged during execution of the Works. Any damage caused shall be repaired at the *Contractor's* cost.

3.6.1 Contractor Competence, Planning and Submissions

a) The *Contractor* must be suitably qualified, competent, and compliant with the Occupational Health and Safety Act (1993) and Construction Regulations (2014) for underground and structural steel works.

b) The *Contractor* must submit:
- a project-specific organogram identifying personnel responsible for execution, quality assurance, and quality control;
- qualifications, experience, and roles of key personnel as part of the Safety Plan;

- detailed procedures and method statements describing how the Works will be executed.

c) Acceptance of submissions does not relieve the *Contractor* of responsibility for workmanship, sequencing, safety, or fitness for purpose.

3.6.2 Survey, Verification and Setting Out

a) The *Contractor* must perform a detailed site inspection to verify existing as-built conditions prior to commencement.

b) This shall include:
- verification of the condition, location, and alignment of all corroded steel Unistrut members supporting the sewer pipe as identified on the layout drawings;
- verification of corroded steel brackets and cable ladders supporting lights and light cables;
- surveys before, during, and after construction to confirm vertical and horizontal alignment of installed steelwork;
- establishment and maintenance of suitable reference control points that will not be displaced during construction.

c) Any discrepancies between drawings, site conditions, or interfaces shall be reported to the Employer's Representative without delay

3.6.3 Materials, Fabrication and Handling

a) All replacement structural steel must:
- be Grade 350WA;
- receive hot-dip galvanising as corrosion protection;
- be clearly marked as galvanised.

b) Bolts and fasteners must:
- be minimum Grade 4.8 (bolts) and Grade 8.8 (nuts) unless noted otherwise;
- be hot-dip galvanised;
- comply with manufacturer specifications.

c) The *Contractor* must:
- verify quantities prior to fabrication;
- prepare and submit fabrication and shop drawings for acceptance prior to manufacture;
- ensure steel components are bundled, packed, transported, handled, and stored to prevent distortion and surface damage;
- store steel components clear of the ground on site

3.6.4 Installation, Grouting and Protection of Existing Services

a) Steelwork erection must be carried out in accordance with SANS 2001-CS1.

b) During installation, the Contractor must:
- take special precautions to prevent damage to the existing sewer pipe, lights, and light cables;
- provide temporary propping or support where required;
- ensure no load is transferred to permanent works until installation and grouting are complete.

c) All grouting must:
- be applied in accordance with manufacturer specifications;
- be completed prior to loading;
- achieve a minimum characteristic compressive strength of 40 MPa at 28 days

3.6.5 Inspection, Testing and Acceptance

a) The *Contractor* must implement a comprehensive inspection and testing regime, including:
- dimensional checks of fabricated steel components;

- verification of conformity with approved drawings;
- qualification of welders, welding operators, and tack welders by a competent fabricator, erector, or independent testing agency;
- maintenance of fabrication and erection test records.

b) Non-destructive testing (NDT) must be carried out as follows:
- 20% magnetic particle inspection of fillet welds;
- 100% ultrasonic testing of all butt welds and full penetration welds.

c) Permissible deviations for fabrication, foundations, anchor bolts, and erected steelwork shall comply with Tables 3 to 9 of SANS 2001-CS1. All test results and inspection records shall be submitted as part of the quality documentation.

3.7 Replacement of Potable Water Pipe and Tank Remedial Works

a) Inside the lift shaft, the potable water supply system comprises a buffer tank, a high-lift pump, and an associated pipeline conveying treated water from the lower Machine Hall to the surface.

b) The existing infrastructure is ageing. The potable water buffer tank exhibits internal corrosion, and the existing pipeline has experienced repeated failures at joints, resulting in leakage between the pump outlet and the surface building. The existing pipeline and couplings are HDPE PN16, which have proven unsuitable for the operating conditions.

c) The *Contractor* must carry out remedial works to restore the reliability, durability, and integrity of the potable water supply system.

3.7.1 Replacement of Potable Water Pipeline

a) The *Contractor* must remove and replace the existing potable water pipeline within the lift shaft from the outlet of the high-lift pump to the surface building.

b) The replacement pipeline must:
- be HDPE Class PN25;
- have a nominal diameter of 50 mm;
- extend from the pump outlet to the surface tanks, over an approximate length of 250 m;
- be jointed by butt-welding at all joints.

c) The pipeline must be:
- supported and anchored to the concrete structure at intervals not exceeding 6 m, or as otherwise required to ensure stability;
- provided with supports designed by the Contractor and fabricated from galvanised steel suitable for the environmental conditions within the lift shaft.

d) The *Contractor* must submit details of the proposed pipe supports and anchorage arrangements for acceptance prior to installation

3.7.2 Potable Water Tank Remedial Works

a) The existing potable water buffer tank must be:
- internally cleaned to remove corrosion products and contaminants; and
- coated internally and externally with a solvent-free epoxy coating suitable for potable water applications.

b) The coating system must:
- be approved for contact with potable water;
- be applied strictly in accordance with the manufacturer’s specifications;
- provide long-term corrosion protection.

c) Material specifications and product data sheets must be submitted for acceptance prior to application.

3.7.3 Spare Pump Supply

a) The *Contractor* must supply one spare high-lift pump for the potable water system, being:
- Grundfos pump model PN-SN A-96516671-10000519, or an accepted equivalent.

3.7.4 Continuity of Water Supply

a) The potable water supply to the site must be maintained throughout the execution of the Works.

b) The *Contractor* must:
- plan and implement temporary water supply measures as required during pipe and tank remedial works;
- ensure that a complete shutdown of the potable water supply is not permitted at any time.

c) Temporary arrangements must be suitable for maintaining operational water requirements and removed upon completion of the permanent works.

d) The *Contractor* shall plan and sequence the Works to avoid disruption to the potable water supply. No shutdown shall occur without prior approval and agreed method of maintaining supply.

3.8 General Clauses

a) No deviation from this Works Information or its referenced documents is permitted without documented acceptance by the *Employer's Representative*.

b) The *Contractor* must include, as part of its tender submission, a schedule of exceptions and/or clarifications, submitted as an Appendix, clearly identifying:
- the section and clause reference;
- the requirement concerned; and
- a detailed explanation of the proposed exception or clarification.

c) In the event of any conflict, ambiguity, or discrepancy between the requirements of this Works Information, referenced documents, or applicable standards, the *Contractor* shall notify the *Employer's* Representative in writing for resolution prior to proceeding with the affected work.

d) All measurements and units used in the execution of the Works shall be metric units.

e) Where referenced codes and standards contain recommendations in addition to mandatory requirements, such recommendations shall be deemed mandatory unless expressly stated otherwise. Where Employer requirements are more stringent than the requirements of a referenced code or standard, the *Employer's* requirements shall apply.

f) The *Contractor* is responsible for providing all design (where applicable) and construction works that are fit for purpose, executed in accordance with sound engineering principles, prudent industry practice, and the requirements of the Contract.

g) The *Contractor* must ensure the stability of all supporting structures, including roof and overhead structures, for the duration of the Works.

h) The *Contractor* must comply with all applicable legislation, regulations, and standards, including but not limited to:
- the Occupational Health and Safety Act, No. 85 of 1993, and the Construction Regulations promulgated thereunder;
- applicable environmental legislation and waste management requirements;

- Eskom Safety, Health, Environment and Quality (SHEQ) Policy 32-727 and Eskom Waste Management Procedures; and
- The National Building Regulations and SANS 10400, as applicable to the Works

i) The *Contractor* shall be deemed to have included for all access constraints, working conditions, and sequencing requirements associated with working within an operational power station. No additional payment will be made in this regard.

3.9 Additional Standards and Specifications Requirements

a) The Works must be executed in accordance with the latest applicable editions of the standards, specifications, legislation, and Eskom requirements listed below, unless a specific revision is stated.

b) Compliance with these standards forms part of the *Contractor*'s obligations under the Contract.

c) Where discrepancies or conflicts exist between:
- this Works Information,
- referenced standards or codes,
- manufacturer's specifications,

d) the more onerous requirement will apply.

e) Where clarification is required, the *Contractor* must notify the *Employer's* Representative in writing. Implementation of any alternative or lesser requirement will only be permitted following documented acceptance by the *Employer's* Representative.

3.9.1 Applicable Standards, Specifications and Legislation

The following standards and specifications apply to the Works, as relevant:

a) South African National Standards (SANS) and Codes
- SANS 1200: Standardised specifications for civil engineering construction
- SANS 2001: Construction works
- SANS 3001: Civil engineering test methods
- SANS 10400: The application of the National Building Regulations
- SANS 681: Undercoats for paints
- SANS 1090: Aggregates from natural sources (fine aggregates for plaster and mortar)
- SANS 10021: Waterproofing of buildings (including damp-proofing and vapour barriers)
- SANS 10155: Accuracy in buildings
- SANS 10305: Painting of buildings
- SANS 1700: Fasteners
- SANS 1921-3: Construction and management requirements for works contracts: Structural steelwork
- SANS 2001-CS1: Construction works: Structural steelwork
- SANS 10120-2 H: Project specification: Structural steelwork
- SANS 10120-2 HA: Project specification: Structural steelwork (sundry items)
- SANS 10120-2 HC: Project specification: Corrosion protection of structural steelwork
- SANS 10120-4 H: Typical schedule of quantities: Structural steelwork
- SANS 10120-4 HA: Typical schedule of quantities: Structural steelwork (sundry items)
- SANS 10120-4 HC : Typical schedule of quantities: Corrosion protection of structural steelwork

b) Structural Steel References
- The South African Structural Steelwork Detailing Manual (Yellow Book)
- The South African Structural Steelwork Connections Handbook (Green Book)
- AWS D1.1: Structural Welding Code – Steel

c) Legislation

- Occupational Health and Safety Act, No. 85 of 1993, and regulations promulgated thereunder
- National Key Points Act, No. 102 of 1980
- Applicable environmental legislation, including the South African Environmental Protection Act

d) Eskom Standards and Procedures

- 32-245: Eskom Waste Management Standard
- 32-727: Eskom Safety, Health, Environment and Quality (SHEQ) Policy
- 240-105658000: Supplier Quality Management Specification
- 240-106365693: Standard for the External Corrosion Protection of Plant, Equipment and Associated Piping with Coatings
- 32-37: Management of Substance Abuse in the Workplace
- 32-95: OHS Incident Management Procedure
- 32-418: Working at Height Standard
- 32-136: Contractor Health and Safety Requirements

e) International Standards

- ISO 9001:2015: Quality Management Systems - Requirements

4. Safety, Health, Environmental and Quality Requirements

4.1 Quality Requirements

4.1.1 General Quality Requirements

a) The *Contractor* must implement and maintain a Quality Management System appropriate to the nature and extent of the Works.

b) Where the *Contractor* operates an accredited Quality Management System, details of the system and procedures shall be submitted to the *Employer's Representative* for acceptance prior to commencement of the Works as detailed below.

c) The supplier shall submit objective evidence of a developed QMS that complies with ISO 9001 (or the latest applicable revision). The following documented information (approved/ signed copies) shall be submitted:

- Quality management system manual or a (documented information) that defines and describes the QMS and its scope
- Quality Policy, aligned with the supplier's strategic direction (documented information)
- Quality Objectives (documented information)
- Control of documented information (both maintain and retain documented information)
- Internal audit procedure (documented information)
- Control of nonconforming outputs (documented information)
- Nonconformity and Corrective Action Procedure (documented information)

d) The supplier shall submit a draft contract quality plan specific to the scope of work described in the tender documents. The plan must meet the minimum requirements of ISO 10005.

- Where applicable, the supplier shall submit an example inspection and test plan (ITP) or quality control plan (QCP).
- The supplier shall submit documented information for Control of Externally Provided Processes, Products and Services.

The supplier shall submit a copy of the documented information on roles, responsibilities, and authorities in relation to the QMS. Examples of relevant documented information include organisation charts, job descriptions, work instructions, duty statements, manuals, and procedures.

4.1.2 Method Statements

a) The *Contractor* must prepare and submit a detailed Work Method Statement for each activity forming part of the Works.

b) No work will commence on any activity until the *Employer's Representative* has accepted the relevant Method Statement.

c) Each Method Statement shall, as a minimum, include:
- the scope and description of the activity;
- the proposed construction methodology and sequence, taking account of access restrictions, operational constraints, and safety requirements;
- health and safety risks associated with the activity and proposed mitigation measures;
- identification of quality control activities and inspection stages, supported by a Quality Control Plan / Inspection and Test Plan (QCP / ITP);
- quality control points and hold points requiring acceptance by the Project Manager;
- plant, equipment, and machinery required to execute the activity;
- temporary works to be used, including details where loads are supported off existing structures;
- manufacturer's literature and technical data sheets for all materials, including product properties, application requirements, limitations, and recommendations;
- measures to safeguard existing infrastructure, services, and adjacent works;

- arrangements for the collection, handling, and disposal of waste materials arising from the activity;
- name, role, and qualifications of personnel responsible for the execution of the activity.

d) Acceptance of Method Statements does not relieve the *Contractor* of responsibility for means, methods, sequencing, safety, quality, or performance of the Works.

e) The *Contractor* must update Method Statements where conditions, sequencing, or risks change.

4.1.3 Quality Control Plans and Inspection Requirements

a) The *Contractor* must prepare and implement Quality Control Plans/Inspection and Test Plans (QCPs/ITPs) covering all critical activities.

b) Quality control activities must include, as applicable, but not be limited to:
- surface preparation of walls, gutters, and downpipes prior to primer and paint application;
- surface preparation for crack repairs prior to sealing or filling;
- inspection of lift shaft walls;
- waterproofing and sealing of water ingress and leaks;
- installation of gutters and downpipes;
- inspection of busbar shafts, including non-destructive testing of concrete linings and structural steel elements where required;
- inspection and repair of concrete and structural steelwork defects within busbar shafts;
- surveys of existing as-built conditions before, during, and after construction within the Exploratory Tunnel;
- replacement of corroded pipe supports and light support brackets within the Exploratory Tunnel.

c) The *Contractor* must provide detailed technical inspection reports for all inspections and tests carried out

4.1.4 Control of Remedial Works Execution

a) Acceptance of any Quality Management documentation, Method Statements, QCPs, or inspection reports by the *Employer's* Representative:
- confirms compliance with contractual requirements at the time of submission;
- does not constitute approval of construction methods;
- does not transfer responsibility for quality, safety, or performance of the Works to the *Employer*

b) All remedial works described in this Works Information are inspection-driven and subject to confirmation on Site.

c) The *Contractor* must not proceed with any remedial work unless:
- the extent of the defect has been inspected,
- the proposed remedial method has been submitted, and
- acceptance has been issued by the *Employer's Representative*.

d) The *Contractor* must ensure that all work is limited to the instructed extent. No payment is made for work carried out beyond the instructed or accepted scope.

e) All method statements, repair procedures, and material specifications shall be submitted for acceptance prior to execution.

f) Completion of each remedial activity must include:
- inspection and acceptance by the *Employer's Representative*,
- submission of quality records, and
- confirmation that the defect has been effectively addressed.

4.1.5. Design by the *Contractor*

4.1.5.1. Responsibility for Design and Construction

a) The intent of the Works is to address water ingress within the lift shaft, machine hall and lower machine hall, and to replace defective sewer pipe supports within the Exploratory Tunnel.

b) It is anticipated that the Works are largely based on existing designs; however, where design is required to be carried out by the *Contractor*, the provisions of this clause shall apply.

c) The *Contractor* is responsible for the design of all parts of the Works, including temporary works, that the Employer does not design.

d) The *Contractor* takes full professional responsibility and liability for all designs prepared by or on behalf of the *Contractor,* including the design of temporary works required for execution of the Works.

e) All designs prepared by the *Contractor* must:

f) comply with applicable SANS, BS, and other relevant standards;
- be prepared, checked, and signed by an ECSA-registered Professional Engineer or Technologist, who assumes professional accountability for the design.
- Where the Contractor acts as a designer in terms of the Construction Regulations, 2014, the *Contractor* shall fulfil the duties of a designer as prescribed therein, including the identification of design-related risks and the provision of appropriate mitigation measures.

g) The *Contractor* must notify the *Employer's* Representative timeously where the *Contractor's* design interfaces with existing plant, services, or structures.

4.1.5.2. Procedure for submission and acceptance of *Contractor's* design

a) Where *Contractor* design is required, the *Contractor* must submit all relevant design information, including drawings, calculations, and reports, to the *Employer's* Representative for acceptance prior to execution of the affected Works.

b) All fabrication and installation must be carried out strictly in accordance with the accepted design information.

c) Acceptance of *Contractor* design information by the *Employer's* Representative:

d) confirms that the information has been reviewed for compliance with the Works Information;

e) does not relieve the *Contractor* of responsibility for the correctness, adequacy, or fitness for purpose of the design;

f) does not transfer design responsibility to the *Employer*.

g) All design submissions and correspondence shall be clearly identified as relating to the Works and submitted in accordance with the *Employer's Representative's* instructed correspondence procedures.

h) All technical documentation shall be submitted electronically, with hard copies provided upon request.

i) The *Employe*r, or their representatives, may inspect, at reasonable times, design documentation and fabrication activities at the *Contractor's* or subcontractor's premises.

4.1.5.3. Time Required for Acceptance of Designs & Calculations

a) The *Employer's* Representative reviews *Contractor* design submissions within the reply periods stated in Clause 13.2 of the Contract Data, in accordance with the Conditions of Contract.

b) Where design submissions are not accepted, the *Contractor* revises and resubmits the design information, clearly identifying all revisions by number, date, and subject.

c) The *Contractor* shall allow for all review and resubmission cycles within the Accepted Programme.

d) Acceptance of any design submissions does not relieve the *Contractor* of responsibility for the design, nor does it transfer design liability to the *Employer*

4.1.6 As-Built Documentation

a) Following execution of the Works, the *Contractor* must prepare and submit as-built drawings and documentation reflecting the Works as constructed.

b) As-built documentation shall be submitted to the *Employer's* Representative for acceptance as part of the Completion requirements.

4.2 Health and Safety Requirements

a) The *Contractor* must comply with the health and safety requirements contained in the OHS Specification/Requirements and the approved safety file. Eskom reserves the right to review the OHS Specification/Requirements to address operational risks, and the *Contractor* must comply with the latest OHS Specification/Requirements as amended, at no additional cost.

b) *Contractor* and *Employer* representatives must sign a 37(2) agreement.

c) The *Contractor's* OHS professional must conduct internal audits at planned intervals to monitor compliance with the contractual health and safety requirements.

d) The *Employer* or his representative will conduct inspections at planned intervals to monitor compliance with the contractual health, safety and legal requirements.

e) The *Contractor* may be selected during internal and/or external Power Station audits to verify compliance with legal and contractual OHS requirements. The *Employer* representatives will communicate this at relevant periods, and the *Contractor* must avail themselves for this audit.

f) In addition to the requirements of the applicable laws governing occupational health and safety, the Power Station OHS requirements particular to the service and the Affected Property for this contract must be adhered to throughout the contract.

g) The minimum requirements for the *Contractor* to gain access to Peaking Generation Power Stations include, but are not limited to:

- A Valid Medical fitness certificate
- Police clearance from SAPS or an accredited supplier/service provider linked to the SAPS AFIS system, not older than 30 days.
- Identification document (RSA ID or equivalent)
- National Driver's Licence (applicable to drivers)
- Adherence to the Eskom Life-saving rules.
- Applicable risk-based PPE

h) A Valid letter of good standing at all times (COIDA or equivalent). Access to the site to perform work will be denied if the Letter of Good Standing is not valid.

i) The *Contractor*/supplier/consultant who is working alone and not eligible to register with the compensation fund must provide Eskom with the member benefit statement for the insurance cover, including life and disability cover, with a minimum fund of R500,000.

Note: Induction will only be done after the above documents have been submitted and accepted by the *Employer*.

4.2.1 Key Performance Indicators

a) The *Contractor* must monitor, manage, and report on the following Key Performance Indicators (KPIs) related to health and safety performance throughout the Contract. These indicators will be used to assess compliance with the *Employer*'s OHS Specification, legal obligations, and safe work practices.

b) The *Contractor* must:

- Maintain a Health and Safety file and ensure compliance with the health and safety plan, Eskom OHS specification, and applicable legislation as amended.
- Always maintain good housekeeping where the task is being executed and/or within the area of responsibility.
- Implement and monitor the near-miss reporting strategy/programme (reporting of near misses).
- Develop and comply with Behavioural Safety Observation (BSO) and Planned Job Observation programmes (PJO).
- Maintain Zero Fatalities for the duration of the contract.
- At any given point, the OHS performance must be within the lost time injury (LTI) tolerance level as amended.
- All incidents must be reported immediately or before the end of the shift in which the incident occurred.
- All incident investigations must be completed within 30 days of the incident.
- Incident investigation recommendations must be closed within the recommended time frame recorded in the Incident investigation report.
- Close audit findings as per the *Employer*'s procedure or audit report recommended time frames.
- Close Non-conformance as per the recommended time frames.

Note: The KPIs listed above must be regularly monitored through audits and site inspections conducted by the *Employer*.

4.2.2 Contract completion and sign-off

a) Upon completion of the Works, the parties will conduct a final meeting to identify any remaining gaps before the contract is closed out.

b) The *Contractor* ensures the following requirements are met before completion of the Works:

- Close all incidents and audit findings.
- Clean the respective site establishment areas and ensure good housekeeping at the locations where the *Contractor* was working.
- The *Contractor* must submit safety statistics and a safety file to the *Employer's* BU Safety department for closeout and filing.
- Completion of a closeout report (Annexure D form as per 32-726) to close the contractual Work*s*

4.3 Environmental constraints and management

a) The *Contractor* complies with all National and Local legislation requirements, as well as Eskom procedures and policies.

b) The *Contractor* must:

I. Prepare and implement a site-specific Environmental Method Statement, including but not limited to:

- Identification of potential environmental impacts of the Works
- Identification of possible waste streams and management of waste streams and
- temporary storage and disposal options for each waste type

- Hazardous materials handling and spill prevention
- Protection of flora, fauna, and cultural heritage sites
- Noise, dust, and emissions control
- Stormwater and wastewater management
- contingency plans in the case of any environmental incident

II. Submit this Environmental Method Statement to the *Employer* for acceptance prior to commencement of any Work*s* on site.

III. Provide Safety Data Sheets for all hazardous substances brought onto the site.

IV. Immediately report any environmental incidents or potential non-compliances to the *Employer*.

V. Maintain proper temporary storage and clearly demarcated areas for all waste and hazardous materials, in line with generally accepted professional practice and legal requirements.

c) The Contractor's activities must be planned and executed to minimise the risk of environmental harm. They must reflect a principle of zero harm to the environment, in line with Eskom's environmental policy.

d) The Duty of Care and implementation of best practice are critical during operations, and full communication on environmental issues is required at all times.

e) The Contractor respects and cares for the natural environment to prevent potential pollution, especially water pollution, from entering the station's stormwater drains that lead into the Orange River.

f) The *Contractor*'s compliance with environmental requirements will be monitored through audits and inspections conducted by the *Employer.*

g) All materials removed as part of the Works, including existing waterproofing membranes, screeds, and debris, must be removed off-site and disposed of at a licensed landfill facility in accordance with applicable environmental requirements.

The *Contractor* must retain records of disposal and provide proof of lawful disposal upon request by the *Employer's Representative.*

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

a) The *Contractor* must execute the Works within an operational power station environment and must plan, sequence, and carry out the Works to minimise disruption to the *Employer's* operations.

b) The *Contractor* must comply with all Site access requirements, permit-to-work systems, safety rules, environmental controls, and security procedures applicable at Vanderkloof Power Station.

c) The *Contractor* must not commence any physical Works on Site until the following pre-commencement requirements have been submitted to and accepted by the *Employer's Representative*:

- Approved Safety File and appointment in terms of the Construction Regulations
- Approved risk assessments, QCP's and method statements for the Works
- Approved materials submission
- Accepted programme in accordance with Section 5 of this Works Information
- Security vetting and inductions of employees

d) The *Contractor* must plan the Works to achieve Completion by the fixed execution Completion Date stated in the Contract Data. Failure to allow for Site constraints, access restrictions, or sequencing requirements shall not constitute grounds for an extension of time or a compensation event.

The Contractor will protect all existing structures, finishes, services, and equipment during the execution of the Works and must immediately make good any damage caused by his operations at his own cost.

5.1 Meetings

a) Meetings are held to promote proactive and joint management of the Contract, with the objective of minimising risks, surprises, and adverse impacts on the Works.

b) Matters discussed may include, but are not limited to:
- health and safety;
- compensation events;
- subcontracting;
- coordination and interfaces;
- programme and progress matters.

c) Meetings of a general nature may be convened and chaired by the *Employer's* Representative. Specialist meetings (e.g. planning, technical, or safety-related) may be convened as required

d) Indicative meetings include:

Title and Purpose	**Approximate Time & Interval**	**Location**	**Attendance by:**
Kick-off meeting	Will be announced upon contract acceptance	Drakensberg Power Station	*Contractor's* representative, Contract Manager, Health & Safety Officer, Financial Officer, Technical representative and others.
Overall contract progress and feedback	Weekly (day TBC)	Drakensberg Power Station / Teams	*Contractor's* representative, Contract manager Technical representative

			and others as required.
Compensation Events	As and when required	Teams	*Contractor's* representative, Contract manager Technical representative and others as required.
Risk reduction meeting	As and when required	Teams	*Contractor's* representative, Contract manager Technical representative and others as required.

e) Attendance is limited to relevant *Contractor* and *Employer* representatives, including technical and contractual representatives as appropriate.

f) Records of meetings are prepared and circulated by the person convening the meeting within five (5) days. Meeting records do not constitute instructions, acceptances, or notifications under the Contract; such matters are issued separately in accordance with the Conditions of Contract.

5.2 Use of standard forms

a) All contractual communications must be made in writing and in accordance with the Conditions of Contract.

b) Early warnings, notifications, and other contractual submissions must be clearly identified as such and must include sufficient detail to enable the *Employer's Representative* to assess the matter.

c) Informal discussions, on-Site instructions, or verbal communications do not constitute formal instructions, notifications, or acceptance unless confirmed in writing in accordance with the Contract.

5.3 Invoicing and payment

a) In terms of core clause 50, the *Contractor* assesses the amount due and applies to the *Employer* for payment.

b) After assessing the *Contractor's* application for payment, the *Employer* will issue the *Contractor* with a payment certificate.

c) Within one week of receiving a payment certificate, the Contractor submits a tax invoice to the Employer, showing the amount due for payment equal to that stated in the Employer's Representative /Project Manager's payment certificate.

d) 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)

e) The Employer's Representative is to be copied in on all electronic invoices emailed.

f) Failure to submit the invoice to the correct address could result in payment delays

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

h) Invoices are submitted electronically to:
- Local Eskom Invoices - invoiceseskomlocal@eskom.co.za
- Foreign Eskom Invoices - invoiceseskomforeign@eskom.co.za

i) The following details are required when submitting invoices and additional data:
- The subject line of your email should only contain your vendor number.
- Each PDF invoice should be named only with your invoice number.
- All electronic invoices are sent in PDF format only.
- Attach the proof of delivery to your invoice.
- Where applicable, supporting documents are attached to the scanned PDF invoice as one attachment.
- A copy of the signed assessment certificate

Retention Certificate, which is a retention invoice

5.4 Records of Defined Cost

a) Where a compensation event is assessed on the basis of Defined Cost in accordance with the Conditions of Contract, the *Contractor* must keep and maintain records sufficient to substantiate the Defined Cost.

b) Such records must, where applicable, include:

- Labour records, including timesheets and rates for personnel employed on the Works
- Records of Plant, Equipment, and Materials used for the Works
- Invoices and payment records for subcontracted work directly related to the compensation event
- Delivery notes, invoices, and receipts for Materials
- Any other records reasonably required to demonstrate the Defined Cost incurred

c) Records must be kept in an orderly and auditable manner and must be made available for inspection by the *Employer's Representative* upon reasonable notice.

Failure by the *Contractor* to keep or make available adequate records may be taken into account by the *Employer's Representative* when assessing the Defined Cost of a compensation event.

5.5 BBBEE and preferencing scheme

The *Contractor* complies with the *Employer's* Black Economic Empowerment Policy. Refer to Part C1.2 Contract Data – Part One.

5.6 Contract Change Management

Contract change management is managed in accordance with Section 6 (Compensation Events**)** of the Contract's Core Clauses**.** In addition, the following specific requirements must apply to ensure effective management and communication of contract changes:

a) All proposed changes, potential compensation events, and early warnings are to be recorded in an Event Register maintained by the *Employer's Representative*.

b) The *Employer's Representative* issues an Early Warning Notification (Clause 16.1) or instructs the *Contractor* to submit a Compensation Event Notification (Clause 61.1) as required.

c) For each Compensation Event:
   - The *Contractor* submits a formal quotation, clearly stating:
     - Details of the event.
     - Rate breakdown of costs and time impact.
     - Supporting information as required.

   - The *Employer*'s *Representative* assesses and responds to the quotation in writing in accordance with Clause 62 of the Contract.

d) All changes affecting the programme (Clause 31), the Price List, or the Works Information must be formally recorded and accepted by the *Employer's Representative* before the *Contractor* may proceed with Work*s* related to the change.

e) The *Contractor* must ensure that:

   - All proposed Subcontractor changes and any potential impact on the Contract are first notified to the *Employer's Representative* in writing.

Any changes to delivery dates or milestones resulting from Compensation Events are promptly reflected in the latest accepted programme

5.6 Facilities to be provided by the *Contractor*

a) The *Contractor* must provide all facilities required for the execution of the Works, including site offices, storage areas, staff facilities, and secure storage for materials, plant, and equipment.

b) No facilities are required to be provided for the *Employer*. The *Contractor* must, however, provide reasonable access to site facilities as required for inspections, meetings, and witnessing of tests by the *Employer's Representative*.

c) All facilities provided by the *Contractor* must comply with applicable health, safety, and environmental requirements and must be removed from the Site upon Completion.

5.7 Title to material from excavation and demolition

a) The *Contractor* is responsible for the disposal of all waste generated from the works in an environmentally friendly manner, ensuring that hazardous (contaminated rubble) and general waste are disposed of at the nearest registered landfill site in accordance with 32-245 of the Eskom Waste Management Standard. The *Employer's* Representative is notified of the disposal site before any disposal can be done.

b) For all scrap metal, cables, and other materials submitted with the tender, the Contractor provides the price per tonne for their disposal. In case of salvaged equipment, identified by the *Employer's* Representative, the *Contractor* is expected to safely remove such equipment and store it at the designated site as identified by the *Employer's* Representative. The list of all salvaged equipment is to be issued to the *Contractor* before the start of the Works.

c) The *Contractor* has no title to any plant or materials resulting from his carrying out the Works. The *Contractor* will have no title to the usable material from the existing facility.

5.8. Cataloguing requirements by the *Contractor*

No applicable Cataloguing requirements for this project.

6. Requirements for the programme

6.1 Submission of the Programme

a) A programme is required in accordance with Clause 31 of the Conditions of Contract.

b) The *Contractor* must submit a detailed programme to the *Employer's Representative* within fourteen (14) days of the Starting Date.

c) The programme must be in a format acceptable to the *Employer's* Representative and shall show, as a minimum:
- the sequence and timing of all activities necessary to Provide the Works;
- key milestones, including commencement of waterproofing works, flood testing, reinstatement works, and Completion;
- the Completion Date stated in the Contract Data;
- allowances for site access constraints, security procedures, and permit requirements;
- allowances for review and acceptance periods for safety documentation, method statements, and material submissions.

d) Acceptance of the programme does not relieve the *Contractor* of responsibility to complete the Works by the Completion Date

6.2 Content of the Programme

a) The programme submitted after Contract award shall include, as a minimum:
- all activities required to Provide the Works, including activities carried out by subcontractors;
- logical links, sequences, and relationships between activities, including all hold points;
- identification of terminal points and key milestones;
- activity durations sufficient to enable progress measurement at the required update intervals;
- a description of each activity, including identifiable deliverables or outputs;
- a single point of responsibility for each activity;
- resources allocated to activities where relevant.

b) The programme must be accompanied by:
- a narrative describing the basis of the programme; and
- a list of assumptions on which the programme is based.

6.3 Updating the Programme

a) The *Contractor* must update the programme at intervals stated in the Contract Data or when instructed by the *Employer's Representative*.

b) Each updated programme shall:
- show actual progress achieved.
- identify any changes to planned logic or sequencing.
- highlight the critical path and any forecast effects on Completion.

c) Updated programmes must be submitted weekly, every Friday at 09:00, or unless otherwise instructed.

6.4 Early Warnings and Programme Compliance

a) Where an updated programme shows a delay or potential delay to any activity on the critical path, the *Contractor* shall issue an Early Warning in accordance with Clause 16.

b) The *Contractor* must plan and manage the Works in accordance with the Accepted Programme, subject to changes arising from compensation events or *Employer's* Representative instructions in terms of the Contract.

6.5 Intended Use at Completion

The intended use of the Works at Completion is the continued safe occupation, operation, and use of the affected areas at Drakensberg Pumped Storage Scheme.

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

The *Employer* will provide limited services and facilities to enable the *Contractor* to execute the Works. The *Contractor* must allow for the availability, limitations, and operational constraints of such services.

The *Employer* does not guarantee the uninterrupted availability of any services provided

Item	Date by which it will be provided
None	

5.2. Site services and facilities

Refer to 32-727, Eskom Safety, Health, Environment and Quality (SHEQ) Policy. All services and facilities that are not specifically stated to be provided by the *Employer* and which are necessary for the *Contractor* to Provide the Works are provided by the *Contractor*.

5.3. Water Supply

The *Contractor* connects to the nearest available water supply point as indicated by the *Project Manager*. Potable water for domestic consumption is to be brought onto the Site by the *Contractor*.

5.4. Power Supply for Construction Purposes

The *Contractor* connects to the nearest available power supply point as indicated by the *Project Manager.*

5.3. Telephone/ Internet Facilities

The *Contractor* is responsible for arranging their own telephone/internet facilities.

5.4. Ablution Facilities

Ablution facilities are available underground and on the surface building.

5.5. Storage Facilities

The *Contractor* is to make his own arrangements for storage facilities and laydown areas required to complete the *works*. All laydown areas on the site are as per agreement with the *Employer's* Representative.

All storage facilities (Plant, Material and Equipment) will be within the boundaries of the Site in order not to affect the operations of Others.

5.6. Security of Works

The *Contractor* is entirely responsible for the security of all the Works, materials, equipment, lighting, and other precautions as necessary to ensure security against theft, loss, or damage. The *Contractor* is advised to visit the site to familiarise themselves with its nature and position.

C4: Site Information

The information contained in this section describes the Site conditions **at the time of tender,** which the Contractor shall allow for in his Prices. This information does not describe the Works, does not impose obligations, and does not change after Contract award

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

1. Access limitations

The Drakensberg Pumped Storage Scheme is reached from Harrismith via the R49 to Kestel. Take the R74 turn-off to Bergville, some 2.8 km along the R49. Turn left after 8.7 km and travel 23.5 km to the KwaZulu-Natal/Free State boundary at the top of the Oliviershoek pass. From there, travel 13.1km down the pass and turn left. Follow the signposted directions to the power station for approximately 9.5 km. The total distance from Harrismith is approximately 60 km. The power station can also be reached by travelling from Ladysmith and Durban.

DPSS is a pumped storage scheme located on the border of the KwaZulu-Natal and Free State provinces, with the admin building in KwaZulu-Natal.

A locality map of the project area is shown in Figure 1.:



Figure 1: Locality Map of the project relative to Drakensburg Power Station

Access to the Power Station is restricted to authorised personnel only. All *Contractors'* staff will require security clearance. The *Contractor* gives the Employer 24 hours' notice of his intention to enter security-controlled areas.

All *Contractors' staff may be tested for alcohol use*. Any person found positive will not be allowed on the site.

Access to the Site is subject to:

- Eskom security procedures, including access permits and inductions
- Compliance with Site safety rules and permit-to-work systems
- Restricted working hours as determined by Site operations

The Contractor must allow for potential delays associated with access control, security clearance, and coordination with Site personnel

2. Ground conditions in areas affected by work in this contract

The *Contractor* is to assess the work area at the site meeting

3. Hidden and other services within the *site*

The *Contractor* is to assess the area to confirm the presence of any services.

4. Details of existing buildings/facilities which the *Contractor* is required to work on

Drawings of the existing lift shaft and machine hall are provided for information and dimensioning only.

The *Contractor* will be issued the drawings listed below, which are available for the *works*. The *Contractor* will, at his own expense, produce all further prints required for the execution of the *works*. The *Contractor* is not to use the drawings for any purpose other than the execution of the Works.

Only the figured dimensions on the drawings are to be used, and drawings shall not be scaled. The levels given on the structural drawings are subject to confirmation on Site.

The *Employer's* Representative may issue additional drawings as necessary to the *Contractor* from time to time during the progress of the *works*. The *Contractor* will timeously notify the *Project Manager* of the priority of the drawings and details required.

Drawings of the existing lift shaft, machine hall, busbar shafts and exploratory tunnel are provided for information and dimensioning only.