NEC3 Engineering & Construction Contract

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

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

for **GARIEP CIVIL STRUCTURE REPAIRS (MACHINE HALL CLADDING)**

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

Part C1: Agreements & Contract Data

Contents: **No of pages**

C1.1 Form of Offer & Acceptance

Offer

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

GARIEP CIVIL STRUCTURE REPAIRS (MACHINE HALL CLADDING)

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

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

Options A B, C or D	The offered total of the Prices exclusive of VAT is	**R [●]**
	Sub total	**R [●]**
	Value Added Tax @ 15% is	**R [●]**
	The offered total of the amount due inclusive of VAT is[1]	**R [●]**
	(in words) **[●]**	

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

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

Tenderer's CIDB registration number (if applicable) .....

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

Acceptance

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

The terms of the contract, are contained in:

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

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

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

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

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

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

Signature(s)		
Name(s)		
Capacity		
for the Employer		
	(Insert name and address of organisation)	
Name & signature of witness		Date

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

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

Note:

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

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

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

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

	For the tenderer:	**For the Employer**
Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2 Changes in the law
		X7: Delay damages
		X13: Performance Bond
		X15: Limitation of *Contractor's* liability for design to reasonable skill and care
		X16: Retention
		X17: Low performance damages
		X18: Limitation of liability
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
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	The *Project Manager* is: (Name)	**Zukiswa Nqolobe**
	Address	**15 Pasita Street, Tygervalley, Bellville**
	Tel	**+27 21 941 5915**
	e-mail	**NqolobZ@eskom.co.za**
10.1	The *Supervisor* is: (Name)	**Rowan Francis**
	Address	**15 Pasita Street, Tygervalley, Bellville**
	Tel No.	**+27 11 800 2311**

	e-mail	FranciRo@eskom.co.za
11.2(13)	The *works* are	**Gariep Power Station Civil Structure Repairs (Machine Hall roof and side wall Cladding)**
11.2(14)	The following matters will be included in the Risk Register	**Water ingress and consequential damage during construction arising from opening up or removing existing cladding before the affected area is permanently reinstated or made weather-tight.**
11.2(15)	The *boundaries of the site* are	**Gariep Power Station**
11.2(16)	The Site Information is in	**Part 4: Site Information**
11.2(19)	The Works Information is in	**Part 3: Scope of Work and all documents and drawings to which it makes reference.**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**5 working days during the design phase. 2 days during construction**
2	**The *Contractor's* main responsibilities**	**Data required by this section of the core clauses is provided by the *Contractor* in Part 2, and terms in italics used in this section are identified elsewhere in this Contract Data.**
3	**Time**	
11.2(3)	The *completion date* for the whole of the *works* is	**26 February 2027.**
11.2(9)	The *key date*s and the *condition*s to be met are:	***Condition* to be met** / ***key date*** **1** **Detail design submission** **31 Aug 2026** **2** **Delivery to the site** **15 Sept 2026** **3** **Construction starts** **21 Sept 2026**
30.1	The *access dates* are:	**Part of the Site** / **Date** **1** **Machine Hall building at Gariep Power Station** **01 Aug 2026**
31.1	The *Contractor* is to submit a first programme for acceptance within	**Two (2) weeks of the Contract Date.**
31.2	The *starting date* is	**01 August 2026.**
32.2	The *Contractor* submits revised programmes at intervals no longer than	**One (1) week.**
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	
4	**Testing and Defects**	
42.2	The *defects date* is	**Fifty-two (52) weeks after Completion of the whole of the *works*.**

43.2	The *defect correction period* is	**Two (2) weeks**
	except that the *defect correction period* for	**defects causing water ingress or loss of weather-tightness is one (1) week**

5 Payment

50.1	The *assessment interval* is	**between the 25th day of each successive month.**
51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**30 days after receipt of an acceptable Tax Invoice and all relevant supporting documentation.**
51.4	The *interest rate* is	**the publicly quoted prime rate of interest (calculated on a 365-day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and** **(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.**

6 Compensation events

60.1(13)	The place where weather is to be recorded is:	**Weather station Gariep dam**
	The *weather measurements* to be recorded for each calendar month are,	**the cumulative rainfall (mm)** **the number of days with rainfall more than 10 mm** **the number of days with minimum air temperature less than 0 degrees Celsius** **the number of days with snow lying at 09:00 hours South African Time** **and these measurements:**

	The *weather measurements* are supplied by	**South African Weather Bureau**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**Weather Station Gariep Dam**
	and which are available from:	**the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer***
60.1(13)	Assumed values for the ten year return *weather data* for each *weather measurement* for each calendar month are:	**As stated in Annexure A to this Contract Data provided by the *Employer*.** **Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.**
7	**Title**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**1. The discovery of asbestos-containing materials not identified in the Works Information.**
9	**Termination**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
10	**Data for main Option clause**	
B	**Priced contract with bill of quantities**	
60.6	The *method of measurement* is	**As stated in Part C2.1, Pricing Assumptions.**
11	**Data for Option W1**	
W1.1	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).**
W1.2(3)	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.**
W1.4(2)	The *tribunal* is:	**arbitration.**
W1.4(5)	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	**Cape Town ,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.**

12 Data for secondary Option clauses

X2	**Changes in the law**	**There is no reference to Contract Data in this Option, and terms in italics are identified elsewhere in this Contract Data.**

X7	**Delay damages**			
X7.1	Delay damages for late Completion of the *section*s of the *works* are:	***section***	**Description**	**Amount per day**
		1	**Cladding above the transformer at Unit 2**	**R50 000**
		2	**Cladding above the transformer at Unit 3**	
		3	**Cladding above the transformer at Unit 4**	
		4	**Cladding above the transformer at Unit 1**	**R50 000**
		5	**Whole of works excluding outage works in Sections 1, 2, 3 & 4**	
	Remainder of the *works*			**R20 000**
	The total delay damages payable by the *Contractor* does not exceed:	**Amount of Rands equivalent to 10% of the total of the Contract Value**		
X13	**Performance bond**			
X13.1	The amount of the performance bond is	**10% of the total of the Contract Value**		
X15	**Limitation of the *Contractor*'s liability for his design to reasonable skill & care**	**There is no reference to Contract Data in this Option, and terms in italics are identified elsewhere in this Contract Data.**		
X16	**Retention**			
X16.1	The *retention free amount* is	**R 0.00.**		
	The *retention percentage* is	**10% of the Prices, 5% will be released at Completion of the whole of the works and the remaining 5% will be released after the Defects Certificate has been issued**		
X17	**Low performance damages**			
X17.1	The amounts for low performance damages are:	**Amount**	**Performance level**	

		R500 000.00 per defect	**Completed cladding, roofing, flashings, hatches, gutters, waterproofing and all associated interfaces remain fully watertight, with no water ingress into the Machine Hall or onto the Employer's plant, equipment or units below.**
X18	**Limitation of liability**		
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**R0.0 (zero Rand)**	
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	**the amount of the deductibles relevant to the event**	
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	**The greater of** • **the total of the Prices at the Contract Date and** • **the amounts excluded and unrecoverable from the *Employer*'s assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.**	
X18.4	The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	**the total of the Prices other than for the additional excluded matters.** **The *Contractor's* total liability for the additional excluded matters is not limited.** **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for** • **Defects due to his design which arise before the Defects Certificate is issued,** • **Defects due to manufacture and fabrication outside the Site,** • **loss of or damage to property (other than the *works*, Plant and Materials),** • **death of or injury to a person and** • **infringement of an intellectual property right.**	
X18.5	The *end of liability date* is	**(i) One (1) years after the *defects date* for latent Defects and** **(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.**	

		A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period. If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.
Z	**The *Additional conditions of contract* are**	**Z1 to Z15 always apply.**

Z1 Cession delegation and assignment

Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer.*

Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.

Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.

Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor*'s B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.

Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.

Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.

Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.

Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.

Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.

Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:

- accepts that the *Employer* may appoint him as the “Principal Contractor” (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) (“the Construction Regulations”) for the Site;
- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
- undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor’s* direction and control, likewise observe and comply with the foregoing.

Z6.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor’s* direction and control, likewise observe and comply with the foregoing.

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

Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Works Information, showing the amount due for payment equal to that stated in the payment certificate.

Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

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

Z9 *Employer's* limitation of liability

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)

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

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

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

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

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

Z12 Ethics

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

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

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

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

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

Z12.3 If the *Employer* terminates the *Contractor*'s obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover

84

84.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.

84.2 The *Contractor* provides the insurances stated in the Insurance Table A.

84.3 The insurances provide cover for events which are at the *Contractor*'s risk from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minim limit of indemnity
Loss of or damage to the *works*, Plant and Materials	The replacement cost where not covered by the *Employer*'s insuranc The *Employer*'s policy deductible, as Contract Date, where covered by the *Employer*'s insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract	Loss of or damage to property *Employer*'s property The replacement cost where not covered by the *Employer*'s insuranc The *Employer*'s policy deductible, as 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 applicable l
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 applicat law

Z 13.2 **Replace core clause 87 with the following:**
The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

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

Nuclear Material Damage Terrorism	Per the insurance policy document

Z14 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.
Z14.1	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.
Z14.2	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*.
Z14.3	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*.
Z14.4	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.
Z14.5	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.
Z14.6	The *Contractor* is obliged to provide Foreground Intellectual Property manufacturing documents, designs, processes and/or specifications to the *Employer* before/on the Completion Date.
Z14.7	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.
Z14.8	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.
Z14.9	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*.

Z14.10 Third Party Claims:

Z14.10.1 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.

Z14.10.2 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.

Z14.10.3 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.

Z14.10.4 Notwithstanding anything contained in this contract, the foregoing sets forth the entire responsibility of *Contractor* with respect to claims relating to infringement.

Z14.10.5 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.

Z14.10.6 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.

Z15 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

AL means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.

Ambient Air means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.

Compliance Monitoring means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the *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.

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

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

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

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

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

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

Z16. Safety File Submission and Acceptance

Z16.1 The *Contractor* submits the Safety File in accordance with the Works Information within 2 weeks of the Contract Date and sufficiently in advance to allow for review, correction and resubmission before the Access Date

Z16.2 Within 1 week of receipt of the Safety File, the *Project Manager* either:
- accepts the Safety File, or
- notifies the *Contractor* of the reasons for not accepting it.

Z16.3 If the Safety File is not accepted, the *Contractor* corrects the non-compliances and resubmits the revised Safety File within 1 week of notification by the *Project Manager*.

Z16.4 Within 1 week of receipt of the revised Safety File, the *Project Manager* either:
- accepts the revised Safety File, or
- notifies the *Contractor* of the reasons for not accepting it

Z16.5 Delays arising from:
- the *Contractor's* failure to submit the Safety File within the period stated in this contract,
- the submission of a Safety File not compliant with the Works Information, or
- the correction and resubmission of the Safety File,

are not Compensation Events.

Z16.6 The *Contractor* includes in the Accepted Programme sufficient time for the preparation, review, correction and resubmission of the Safety File.

Z16.7 If the *Project Manager* does not respond within the periods stated in this clause and this delays access to the Site, the resulting delay is a Compensation Event

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

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

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

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(8)	The *direct fee percentage* is The *subcontracted fee percentage* is	**%** **%**
11.2(18)	The *working areas* are the Site and	
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	**CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .**

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

11.2(3)	The *completion date* for the whole of the *works* is			
11.2(14)	The following matters will be included in the Risk Register			
11.2(19)	The Works Information for the *Contractor*'s design is in:			
31.1	The programme identified in the Contract Data is			
B	**Priced contract with bill of quantities**			
11.2(21) 11.2(31)	The *bill of quantities* is in The tendered total of the Prices is	**(in figures)** **(in words), excluding VAT**		
B	**Priced contract with bill of quantities**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	**Minus %**		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are **Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.** **Please insert another schedule if foreign resources may also be used**	**Category of employee**	**Hourly rate**	
62 in SSCC	The percentage for design overheads is	**%**		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			

C1.3 Forms of Securities

Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Options:

Option X13: Performance Bond

Each of these secondary Options requires a bond or guarantee "in the form set out in the Works Information". Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Works Information.

Option X16: Retention

The *Contractor* may provide a Retention Money Guarantee in the form stated here. When the *Employer* receives and accepts a Retention Money Guarantee exactly in the form stated he will instruct the *Project Manager* not to assess any amount be retained in terms of secondary Option X16.

The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

Pro forma Performance Bond – Demand Guarantee (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Contractor's Parent Company)

Eskom Holdings SOC Ltd
Megawatt Park
Maxwell Drive
Sandton
Johannesburg Date:

Dear Sirs

Reference No. **[●]** *[Drafting Note: Bank reference number to be inserted]*

Performance Bond – Demand Guarantee: *[Drafting Note: Name of Contractor to be inserted]*

Project [ ] Contract Reference: …… *[Drafting Note: Contractor contract reference number to be inserted]*

1. In this Guarantee the following words and expressions shall have the following meanings:-

1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]

1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]

1.3 "Contract" – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. [.]as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted]

1.4 "Contractor" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]

1.5 "Eskom" - means Eskom Holdings SOC Ltd, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30].

1.6 "Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.

1.7 "Guaranteed Sum" - means the sum of R [●] ([●] Rand);

1.8 "Project" - means [insert if applicable.].

2. At the instance of the Contractor, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.

3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:

3.1 be signed on behalf of Eskom by a Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;

3.2 state the amount claimed ("the Demand Amount');

3.3 state that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:

4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

5. The Bank's obligations in terms of this Guarantee:

5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between Eskom and the Contractor.

6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.

7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.

8. This Guarantee:

8.1 shall expire on the Expiry Date until which time it is irrevocable;

8.2 is, save as provided for in 7 above, personal to Eskom and is neither negotiable nor transferable;

8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and

8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.

8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____ Date _____

For and behalf of the Bank

Bank Signatory: _____ Bank Signatory: _____

Witness: _____ Witness: _____
Bank's seal or stamp

Pro forma Retention Money Guarantee (may be used when Option X16 applies)

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Guarantee)

Eskom Holdings SOC Limited
Megawatt Park
Maxwell Drive
Sandton
Johannesburg Date:

Dear Sirs

Reference No. **[●]** *[Drafting Note: Bank reference number to be inserted]*

Retention Money Guarantee: *[Drafting Note: Name of Contractor to be inserted]*

Project [ ] : Contract Reference: *[Drafting Note: Contractor contract reference number to be inserted]*

1. In this Guarantee the following words and expressions shall have the following meanings:-

1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]

1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]

1.3 "Contract" – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. ……. as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted]

1.4 "Contractor" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]

1.5 "Eskom" - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30

1.6 "Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.

1.7 "Guaranteed Sum" - means the sum of R [●] ([●] Rand); [Drafting Note: Insert amount of Retention Money Guarantee.].

1.8 "Project" - means the……..

2. At the instance of the Contractor, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.

3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:

3.1 be signed on behalf of Eskom by a director of Eskom or his authorised delegate.

3.2 state the amount claimed ("the Demand Amount');

3.3 state that the Contractor has failed to carry out his obligation(s) to rectify certain defect(s) for which he

is responsible under the Contract (and the nature of such defect(s)) alternatively that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:

4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

5. The Bank's obligations in terms of this Guarantee:

5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed by the fact that a dispute may exist between Eskom and the Contractor.

6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.

7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.

8. This Guarantee:

8.1 shall expire on the Expiry Date until which time it is irrevocable;

8.2 is, save as provided for in **7** above, personal to Eskom and is neither negotiable nor transferable;

8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and

8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.

8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____ Date _____ Bank's seal or stamp

For and behalf of the Bank

Bank Signatory: _____ Bank Signatory: _____

Witness: _____ Witness: _____

PART 2: PRICING DATA
ECC3 Option B

C2.1 Pricing assumptions: Option B

How work is priced and assessed for payment

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

Identified and defined terms	11 11.2	(21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration. (28) The Price for Work Done to Date is the total of • the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and • a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed. Completed work is work without Defects which would either delay or be covered by immediately following work. (31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

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

Function of the Bill of Quantities

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

Guidance before pricing and measuring

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

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

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

Measurement and payment

Symbols

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

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

General assumptions

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

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

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

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

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

Departures from the *method of measurement*

Amplification of or assumptions about measurement items

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

C2.2 the *bill of quantities*

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 1 **PRELIMINARY & GENERAL**				
	SCHEDULED FIXED-CHARGE ITEMS				
1	**Contractual requirements**	Sum	1		
2	Offices and storage sheds, workshops, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power and communications, dealing with water, access and plant.	No	1		
	Other fixed charged obligations				
3	a) Security of Contractor's plant and personnel	Sum	1		
4	b) Setting out of the Works, including setting out in accordance with the Project Specifications	Item	1		
5	c) The preparation of risk assessments, safe work procedures, and the Health & Safety plan. Provision of personnel protection equipment and clothing, and any other health and safety matters according to the specifications for the duration of the contract.	Sum	1		
6	d) Compliance with Environmental Management plan	Sum	1		
7	Removal of Site Establishment	Sum	1		
	SCHEDULED TIME RELATED ITEMS				
8	Contractual requirements Operation and maintenance of facilities on site for the duration of construction, except where otherwise stated	Month	7		

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
9	Offices and storage sheds, workshops, laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power and communications, dealing with water, access and plant.	Month	7		
10	Supervision for the duration of construction	Month	7		
11	Company and head office overhead costs for the duration of the contract	Month	7		
	Other time-related obligations				
12	a) Quality Management	Month	7		
13	a) Security of Contractor's plant and personnel	Month	7		
14	c) Full compliance with all Health and Safety matters, updating and amending risk assessments, safe working procedures, the project Health & Safety file, the Health & Safety plan, the provision and maintenance of personnel protective equipment and clothing and any other Health and Safety matters according to the specifications.	Month	7		
15	d) Compliance with Environmental Management plan	Month	7		
16	e) Equipment for Access for inspection, assessment of the existing building to produce as-built drawing	Sum	1		
17	f) Produce complete workshop drawings with new roof and side cladding specifications	Sum	1		
18	g) All equipment for the Complete installation of side cladding and roof sheeting (i.e. Scaffolding, Cherypicker, etc.)	Sum	1		
	Carried to Summary				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 2 **WATERPROOFING**				
	MACHINE HALL - SHEETING REPLACEMENT				
1	**REMOVAL OF EXISTING WORK** Hacking up/off and removing existing waterproofing, etc., from steel sheeting and preparing surfaces for new waterproofing membrane, etc Rate to include cart and disposal to the appropriate landfill site <u>Taking down of the existing items:</u> Waterproofing from the roof	m^2	238.00		
2	**SUPPLEMENTARY PREAMBLES** **Waterproofing** Waterproofing of roofs, basements, etc., shall be laid under a ten-year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets, etc., with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour for turn-ups and turn-downs **WATERPROOFING OF THE ROOF** Two layers of 4mm Derbigum torch-on waterproofing membrane with UV protective layer laid over lapping edges on cement screeded surface primed with bituminous primer, all laid to the manufacturer's specifications Supply and installation of an approved double waterproofing system to the applicable design and manufacturer's specifications. Carried to Summary	m^2	238		

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO 3 **ROOF SHEETING AND SIDE SHEETING**				
	NOTE: **Remove existing cladding, clean, remove debris and dispose of droppings found between cladding and steel girts. Old sheets are to be removed, and new sheets replaced and secured immediately and in sequence. The Contractor is to ensure that no openings are left for an unreasonable period of time, and certainly not overnight or at weekends, and that no rain is allowed to ingress into the buildings and damage equipment or disrupt production.** **REMOVAL OF EXISTING SHEETING INCLUDING CAPPING AND FLASHING** Taking down of the existing items				
1	Roof sheeting, including capping and flashing.	m2	3850		
2	Vertical sheeting, including capping and flashing.	m2	5000		
3	Provision of temporary barriers, screens and protection measures to prevent damage to existing work and site equipment. This includes adequate construction warning signs and demarcations.	m	400		
	PRIMARY ROOF ENVELOPE: **PROFILED METAL ROOF SHEETING AND ACCESSORIES**				
4	0.58mm "Kliplok 406 Colorplus AZ200" rolled from G550 steel (Heavy Industrial) rolled in continuous length (or equal approved) with Colorbond Ultra finish of approved standard colour on one side and standard grey backing finish on reverse side, fixed to steel purlins or rails (colour to match surrounding buildings) and fixed, in strict	m2	3850		

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	accordance with manufacturer's specifications by a Approved Contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of the roofs by the manufacturer Roof covering with pitches not exceeding 25 degrees Steel sheet accessories to the preceding roof covering, finish of approved standard colour on one side and standard grey backing finish on the reverse side and fixed by way of S10 brackets or Sliding brackets at the apex, where roof sheets are 30m or longer, all in strict accordance with the manufacturer's specification using the appropriate tools available from				
5	Headwall flashing	m	280		
6	Gable trims	m	56		
7	Narrow and broad flute closers	m	911		
8	Moulded narrow and broad rib polyethelene filler blocks	m	911		
	SIDE SHEETING SHALL BE IBR 686 PROFILE ROLL-FORMED IN CONTINUOUS LENGTHS FROM A CERTIFIED SUPPLIER				
9	The side sheeting used for replacement is IBR 686 0.58mm "Colorplus AZ200" rolled from G550 steel (Heavy Industrial) rolled in continuous length (or equal approved) with Colorbond Ultra finish of approved standard colour on one side and standard grey backing finish on reverse side, fixed to steel side sheeting rails/girts (colour to match surrounding buildings) and pierced fixed, in strict accordance with manufacturer's specifications by a Approved Contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of the roofs by the manufacturer	m2	4500		

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
10	New drip flashing - ColorPLUS® ® AZ200 0.55mm coated steel with a ColorPLUS® finish to one side and standard backing coat, colour to match existing sheeting. and fixed, all in strict accordance with the manufacturer's specification, using the appropriate tools available from Approved Suppliers.	m2	360		
11	Corner trims	m	27		
12	Apex flashings	m	136		
13	Jamb flashings	m	70		
	Carried to Summary				
	BILL NO 4 **CEILINGS, PARTITIONS AND ACCESS FLOORING INSULATION**				
	"Lamdaboard (PIR)" or similar approved non-combustible ceiling insulation board, neatly aligned, securely fixed to the underside of purlins, all in accordance with the manufacturer's specifications and recommendations.				
1	50mm Thick ceiling insulation board	m2	3850		
2	50mm Thick ceiling insulation board vertically	m2	5000		
	Carried to Summary				
	BILL NO 5 **STRUCTURAL STEELWORK** **HOT DIPPED GALVANISED STEEL**				
	Note Prices must include the installation and erection of all steel members.				
	Steel girts and additional Supports (Provisional)				
1	Additional girts required for levelling, alignment and spacing of support structure to be installed for the purpose of ensuring that the contact faces between girts/supports are maintained as per the manufacture's specification and that the sheeting and cladding are in the same plane at the required spacing. This includes the inspection of support structure,	kg	21120		

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	materials, fixings, and installation where and if required				
2	**GALVANISED CAT LADDER**				
	Cat ladder complete for a height of 20m	No	2		
	Carried to Summary				
	BILL NO 6 **PLUMBING AND DRAINAGE** **RAINWATER DISPOSAL** **GUTTERS AND RAINWATER PIPES**				
	3,5mm CR12 Stainless Steel gutters				
1	Purpose made gutter made from 3.5mm thk CR12 Stainless Steel bent to match the existing gutter. Bent along length including necessary collared and sealed expansion joints including bearers	m	304		
2	Extra over gutter for stopped end	no	4		
3	Extra over gutter for outlet:	no	12		
	PVC Pipe Rainwater Pipe				
4	150mm Diameter down pipes	m	72		
	Carried to Summary				

TOTAL CARRIED FORWARD	
VAT 15%	
TOTAL INCL. OF VAT	

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	*Employer*'s Works Information	76
C3.2	*Contractor*'s Works Information	1
	Total number of pages	78

C3.1: EMPLOYER'S WORKS INFORMATION

Contents

1. Description of the *works*

1.1 Executive overview

1) The Works are to be carried out at the Gariep Power Station Machine Hall surface building and comprise the replacement of the external wall cladding and the main roof sheeting system (together with all necessary associated components and interfaces) to restore the building envelope and prevent water ingress.

2) The *Contractor's* scope includes, in summary:

   a) Staged dismantling and removal of existing wall cladding and roof sheeting and associated elements (including insulation, waterproofing interfaces, ridge/vent components, cappings/flashings and gutters) to enable inspection and replacement, while maintaining building protection and safe station operations.
   b) Verification and assessment of the existing roof and cladding support arrangement and associated elements (including purlins, girts, fixings, gutters, hatches, flashings and rainwater downpipes) to confirm the as-found installation and condition for purposes of record information and installation detailing.
   c) Preparation of as-built (record) information and development of shop/installation drawings for the replacement works, based on verified site measurements and interfaces.
   d) Supply and installation of new external wall cladding comprising IBR profile zinc-aluminium coated, pre-painted sheeting (and compatible fixings and accessories) in accordance with the *Employer*'s requirements.
   e) Supply and installation of new roof sheeting comprising a concealed-fix Klip-Lok (or similarly approved) roof system (and compatible clips/fixings and accessories), including reinstatement/replacement of insulation as required, in accordance with the *Employer*'s requirements.
   f) Renewal/reinstatement of all associated weatherproofing interfaces, including flashings, closures/terminations, ridge/vent elements, hatches and gutter/rainwater goods, to deliver a complete, weathertight roof and wall cladding system.
   g) Design, supply and installation of a permanent roof access system (cat ladder) and associated fixings/supports for safe inspection and maintenance access, including submission of the relevant manufacturer checks and shop drawings for acceptance prior to installation.

3) The works are predominantly external and at height and must be planned and executed in a sequenced manner that maintains weather protection throughout staged removal and installation, and allows normal station operations to continue.

1.2 *Employer*'s objectives and purpose of the works

1) The *Employer*'s business need is to restore the integrity, safety and performance of the Machine Hall surface building envelope at Gariep Power Station by replacing deteriorated/loose external wall cladding and the roofing system, and its associated components with new ones, as the existing ones have aged and reached the end of their design life. The Machine Hall is an operational facility, and the Works are required to combat the recent water ingress that was experienced in internal areas that contributed to ongoing asset degradation. This will minimise unplanned maintenance and improve the safe long-term operation of the building.

2) The *Employer*'s objective is the effective replacement of the loose/deteriorated external wall cladding and the roofing system, including all associated fittings, interfaces and waterproofing, using the specified IBR wall cladding system and the specified concealed-fix roof sheeting system, to eliminate uncontrolled water ingress and ensure roof drainage and stormwater elements operate efficiently.

3) The *Employer* requires that the *Contractor* provide a complete and fully functional replacement roof and external wall cladding system, including all necessary associated fittings and interfaces, such that at Completion:

   a) The replaced cladding and roofing components, including all fixings, accessories and interfaces, are properly installed and remain mechanically secure for the operating environment, eliminating the risk of loose or detached sheets/components.
   b) All water ingress paths through the roof and cladding system (including sheets, joints, laps, penetrations, flashings, ridges/vents, hatches/interfaces, gutters, downpipes and terminations) are effectively sealed such that uncontrolled water ingress into the building does not occur under reasonably foreseeable weather exposure, including wind-driven rain.
   c) The roof drainage and stormwater elements, including gutters, outlets and downpipes, are reinstated/renewed and operate efficiently to collect and discharge rainwater without persistent ponding, overflow or leakage at joints and interfaces, and without causing water ingress or deterioration to the building envelope.
   d) The replacement systems are installed in accordance with the *Employer*'s stated technical requirements in this Works Information, including the specified wall cladding profile and the specified roof system, and are compatible with associated components and interfaces.

4) The Works are fit for purpose if, at Completion and during the defects period, the Machine Hall roof and wall cladding perform as a complete integrated building-envelope system meeting the outcomes above, without recurring leakage, insecure components, or premature degradation attributable to the *Contractor*'s materials selection, workmanship, installation or detailing.

5) For avoidance of doubt, any acceptance by the *Employer* of drawings, submissions, inspections or attendance does not reduce the *Contractor*'s responsibility to achieve the above outcomes.

1.3 Interpretation and terminology

1.3.1 Definitions (additional to those in the Conditions of Contract)

For purposes of this Works Information, the following definitions apply:

Terminology	Description
Machine Hall	The Gariep Power Station Machine Hall building and immediate surroundings are necessary to execute the Works, including roof level, external elevations, and interfaces to rainwater disposal systems
Building Envelope	The combined roof and wall cladding system, including sheeting, insulation, flashings, closures, penetrations, gutters, downpipes and all terminations/interfaces required to provide a complete weatherproof barrier.
Roof Sheeting System	The roof sheets together with all concealed/pierce fixings, clips, sealants, laps, ridges/vents, flashings, hatches/interfaces, gutters and downpipes required for a complete, weathertight roof assembly.
Wall Cladding System	The wall cladding sheets together with all fixings, sealants, laps, flashings, closures, penetrations and terminations required for a complete, weathertight wall assembly.
Supporting Steelwork	Existing structural members supporting the roof and wall cladding systems (including, as applicable, rafters, purlins, girts, brackets, cleats and connection components).
Rainwater Goods	All components provided to collect and convey rainwater from the roof (including gutters, outlets, sumps/hoppers if applicable, downpipes, brackets and discharge arrangements).
Catladder	The permanent roof access ladder system (including brackets, fixings, supports, and any safety accessories) is required for safe inspection and maintenance access.
Temporary Weatherproofing	Temporary measures installed by the *Contractor* to prevent uncontrolled water ingress during staged removals/installation, including temporary coverings and sealing to exposed edges/penetrations.
As-built (Record Information)	Final verified drawings and information that accurately reflect the Works as constructed, including installed product details and interface arrangements.
Acceptance / Accepted:	Acceptance in writing by the *Project Manager* and/or Supervisor (as applicable under the Contract). Acceptance does not change the *Contractor*'s obligations or responsibility.

1.3.2 Abbreviations used in this Work's Information

The following abbreviations are used in this Work's Information:

Abbreviation	Meaning given to the abbreviation
AFC	Approved for construction
AZ	Aluminium-zinc coated (coating designation as specified)
IBR	Inverted Box Rib (sheet profile)
Hr	Hour
ITP	Inspection and Test Plan
MEWP	Mobile Elevating Work Platform
OHS / OHSA	Occupational Health and Safety / Occupational Health and Safety Act
QA/QC	Quality Assurance / Quality Control
QCP	Quality Control Plan
Rev	Revision
RP	Responsible Person
RWDP	Rainwater Downpipe
SANS	South African National Standard
SHE / SHEQ	Safety, Health, Environment / Safety, and Quality

2. Management and start up.

2.1 Management meetings

1) To support effective administration of the Contract, the *Contractor* attends and participates in management meetings convened by the *Project Manager*.

2) The purposes of management meetings are to:
   a) coordinate progress and upcoming work,
   b) review the Accepted programme, constraints and recovery actions,
   c) manage risks, Early Warnings and (where applicable) compensation events,
   d) coordinate site access requirements, permits and interfaces,
   e) review quality planning, inspections/hold points and close-out deliverables,
   f) Confirm key contractual communication obligations.

3) The *Contractor* provides suitably experienced attendees with delegated authority to make decisions and commit resources as required.

4) Meeting records (minutes and/or an action register) are prepared by the person convening the meeting and circulated within five (5) Working Days. Meeting records do not substitute for formal notifications, instructions or other communications issued in accordance with Clause 13 of the Contract.

5) Meetings may be held on-site or via Microsoft Teams (or equivalent), depending on the nature of the discussion and the parties' availability.

6) The *Project Manager* may convene additional meetings where required to address technical, programme-related, commercial or interface matters.

2.1.1 General Execution Meetings

The following meetings may be convened (frequency adjusted by the *Project Manager* to suit the risk and stage of the Works):

2.1.1.1 Project kick-off meeting

Held before commencement of site works to confirm key people, communication routes, programme approach, access/permit constraints, sequencing expectations, quality requirements and key hold points:

Interval	Location	Attendance by:
Once-off meeting	MSTEAMS or on-site	*Project Manager*, *Contractor*, *Project Supervisor*, Project Engineer, Power Station Manager and Others as required

2.1.1.2 Implementation meetings for specific progress/QC, and feedback

1) The implementation meeting is held between the Contractor and the Employer's implementation support team, to report on implementation progress and review any risks, issues and Employer actions that need to be resolved in order to ensure smooth implementation of the machine hall cladding.

2) The Contractor's QC representatives provide reports from each meeting to the Employer's Project Engineer.

3) This report will cover:
   a) Scheduled QC inspections for the period identified in the meeting.
   b) Any new QC-related issues identified since the last report, their status and action plan for resolution.
   c) Status and progress on previously reported quality issues.

4) Implementation meetings format:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	As required	MSTEAMS or on-site	*Project Manager*, *Contractor*, *Project Supervisor*, Quantity Surveyor and Project Engineer
Overall contract progress and feedback	Minimum Bi-weekly or as required by the *Project Manager*.	MSTEAMS or on-site	*Project Manager*, *Contractor*, *Supervisor*, and Project Engineer
Installation progress meetings	Daily	on-site	*Contractor*, Supervisor, and relevant Engineer when required

2.1.2 Meetings of a specialist nature

1) The *Project Manager* (or the *Contractor*, subject to the *Project Manager* being notified) may convene specialist meetings to address:
   a) design review/clarifications,
   b) temporary works/access / lifting coordination,
   c) interface management with Others,
   d) QCP/ITP reviews and technical compliance matters,
   e) safety audits and technical risk discussions.

2) Attendance, frequency and location are fit-for-purpose and recorded. Records are submitted to the *Project Manager* within five (5) Working Days after the meeting.

2.1.3 Post-implementation meeting for project feedback and review

1) A once-off close-out meeting may be held (if required) to review outstanding punch-list items, documentation, warranties/guarantees, lessons learned and final handover requirements:

Interval	Location	Attendance by:
Once-off	MSTEAMS or on-site	*Project Manager*, *Contractor*, Project Supervisor, Project Engineer, Power Station Manager and Others as required

2.2 Documentation control

1) The *Contractor* establishes and maintains a structured document management system for all Contract documentation throughout the Contract and defects period. This system applies to all documents related to correspondence, design, procurement, installation, inspection/testing, handover, and as-built Works.

2) The document control system provides full traceability, revision and status control, transmittal records, and clear identification of document status (e.g., “Issued for Review”, “Issued for Acceptance”, “AFC – Approved for Construction”, “As-Built”, “Superseded”).

3) The *Contractor* complies with the *Employer*’s document control standards, including:
   a) 240-86973501: Engineering Drawing Standard – Common Requirements
   b) 240-54179170: Classification and Designation of Technical Documentation
   c) 32-644: Documentation Management Standard

4) All documentation:
   a) is in South African English and uses SI units;
   b) is legible, professionally prepared, and signed by authorised personnel where applicable;
   c) is submitted without password protection or write protection;
   d) is submitted in PDF unless an editable format is specifically required. Editable formats are required as a minimum for:
      i. the programme (native scheduling format),
      ii. drawings (native CAD format where applicable), and
      iii. Final as-built / record information.

5) Each submission is issued with a formal transmittal, uniquely numbered, indicating:
   a) document title and number;
   b) revision number and document status;
   c) date of issue; and
   d) purpose of issue (e.g., “For Review”, “For Acceptance”, “AFC”, “As-Built”).

6) Final “As-Built” submissions include, as applicable to the Works:
   a) one complete hardcopy drawing set with signed title blocks;

b) editable electronic copies of all final record information;
c) product data sheets and certificates;
d) warranties/guarantees; and
e) O&M / maintenance information relevant to the installed roof/cladding, rainwater goods and permanent access arrangements (including inspection and cleaning recommendations where applicable).

7) Presentation and formatting requirements for final hard copies:
a) submitted in ISO A4 D-ring binders (not post binders);
b) binders not exceeding 80 mm thickness; and
c) front cover and spine clearly labelled with contract number, title, volume and revision.

8) All formal communications, including document submissions and technical queries:
a) are issued as signed letters or forms on the *Contractor*'s letterhead.
b) are submitted as PDFs attached to an email (not in the email body); and
c) Reference (where applicable) the ECC clause, the contract number, subject and cross-references.

9) Routing and receipt:
a) All document deliverables are routed to the *Project Manager* (and copied to the Supervisor where relevant).
b) The *Contractor* retains evidence of transmission and receipt (email record + transmittal + recipient acknowledgement or equivalent evidence). The *Contractor* is responsible for ensuring submissions are properly received in accordance with Clause 13.

10) Document submissions related to design review and acceptance are aligned with the process stated in Section 3.3 of this Works Information.

2.3 Communication Requirements

1) All communications from the *Contractor* required under the Contract are addressed to the *Project Manager* in accordance with the NEC ECC.

2) Every contractual communication (including notifications, replies, submissions and requests) clearly states:
a) the *Employer*'s contract number (e.g., 46000xxxxx);
b) the contract title;
c) any relevant previous reference(s) (e.g., the *Project Manager*'s reference being replied to);
d) the ECC clause under which the communication is issued (where applicable);
e) whether a reply is required and by when (where applicable); and
f) The *Contractor*'s unique letter/reference number.

3) In accordance with ECC clause 13.7, each notification/communication deals with one issue only. Separate issues are issued as separate communications.

4) All document deliverables transmitted for review, acceptance, record or information are accompanied by:
   a) formal covering communication; and
   b) a document transmittal listing each document title/number, revision, status and purpose of issue.

5) Where hardcopy deliverables are required by the Works Information, each hardcopy submission is accompanied by a hardcopy copy of the covering communication and/or document transmittal.

6) Where communications are submitted electronically:
   a) The letter title is reflected in the email subject line.
   b) One letter/communication per email (with its attachments and transmittal); and
   c) contractual communications are attached as controlled documents (PDF), not issued only in the email body.

7) Copying additional recipients does not change the requirement that contractual communications are addressed to the *Project Manager*.

2.4 Health and safety risk management

1) The *Contractor* complies with all applicable occupational health and safety legislation, the *Employer*'s OHS Specification/Requirements, and the approved safety file for this Contract.

2) Eskom reserves the right to review and amend the OHS Specification/Requirements to address operational risks. The *Contractor* complies with the latest OHS Specification/Requirements as amended, at no additional cost.

3) *Contractor* and *Employer* representatives sign the required section 37(2) agreement before commencement of physical Works on the site.

4) The *Contractor* provides competent OHS resources and ensures that all risk assessments, method statements and safe work procedures adequately address the inherent hazards of these Works, including (as a minimum):

   a) working at height and fall prevention/protection;
   b) scaffolding/MEWPs and access control;
   c) lifting/rigging and handling of long sheets and components;
   d) dropped-object prevention and exclusion zones;
   e) weather constraints (wind/rain) affecting roof works; and
   f) protection of operating plant, building openings and internal equipment from debris and water ingress during staged works.

2.4.1 Audits, inspections and station audits

1) The *Contractor*'s OHS professional conducts internal audits at planned intervals to monitor compliance with contractual and legal health and safety requirements.

2) The *Employer* (or representative) conducts inspections at planned intervals to monitor compliance with contractual health, safety and legal requirements.

3) The *Contractor* may be selected during internal and/or external Power Station audits. The *Project Manager* communicates this when applicable, and the *Contractor* avails itself for such audits.

4) In addition to statutory requirements, the *Contractor* complies with all Power Station OHS and operational requirements applicable to the Affected Property for the duration of the Contract.

2.4.2 Minimum access prerequisites and induction

1) Minimum requirements for *Contractor* personnel to gain access to Peaking Generation Power Stations (and/or Gariep Power Station site requirements) include, but are not limited to:

   a) valid medical fitness certificate;
   b) police clearance (SAPS or accredited AFIS-linked provider) not older than three (3) months;
   c) identification document (RSA ID or equivalent);
   d) valid driver's licence (where applicable);
   e) adherence to Eskom Life-Saving Rules;
   f) applicable risk-based PPE;
   g) valid letter of good standing at all times (COIDA or equivalent). Access is denied if invalid.
   h) where a *Contractor*/supplier/consultant is working alone and is not eligible to register with the compensation fund:
   i) a member benefit statement confirming insurance cover, including life and disability, with a minimum fund of R500,000.

2) Induction is conducted only after the above documents have been submitted and accepted by the *Employer*. The *Contractor* allows approximately two (2) hours for induction (unless otherwise advised by the *Employer*).

2.4.3 Daily control requirements (site discipline)

1) The *Contractor* signs on to the workers' register each morning and signs off each afternoon.

2) A Responsible Person (RP) is appointed by the site and is responsible for the work area. The RP controls access to the work area, confirms the area remains safe for work, and verifies that all personnel sign in and out.

3) The *Contractor* notifies the RP of the daily work plan and intended work fronts before commencing work for the day.

4) The *Contractor* conducts a toolbox talk each morning before commencing work, covering at least: the day's tasks, hazards, controls, interfaces, exclusion zones, dropped-object controls, weather considerations and lessons learned from the previous day.

5) Where required by station arrangements, the *Contractor* provides a representative to attend daily morning coordination meetings.

2.4.4 Key performance indicators and reporting (HSE)

The *Contractor* monitors, manages and reports health and safety performance for the duration of the Contract. As a minimum, the *Contractor*:

1) maintains a Health and Safety File and ensures compliance with the approved health and safety plan, the Eskom OHS specification and applicable legislation;

2) maintains good housekeeping in all working areas and site establishment areas;

3) implements and monitors a near-miss reporting programme;

4) implements Behavioural Safety Observations (BSO) and Planned Job Observations (PJO) as required by the OHS Specification/Requirements;

5) targets a zero-harm outcome and maintains performance within the *Employer*'s injury tolerance levels (including LTI tolerance) as defined in the OHS Specification/Requirements;

6) reports all incidents immediately or before the end of the shift in which the incident occurred;

7) completes incident investigations within seven (7) days of the incident (unless otherwise required by the *Employer*'s procedures);

8) Closes incident investigation recommendations within the timeframes stated in the investigation report.

9) Closes audit findings and non-conformances within the timeframes stated by the *Employer*'s procedure and/or audit report.

10) The *Employer* monitors these KPIs through audits and site inspections.

2.4.5 Contract completion and sign-off (HSE close-out)

Upon completion of the Works, the Parties may conduct a final close-out meeting to identify and address any remaining HSE gaps before contract close-out.

Before Completion (or as otherwise instructed), the *Contractor*:

1) closes all incidents, investigations, non-conformances and audit findings relevant to the Works;

2) cleans all site establishment areas and work areas and leaves them in a safe, orderly condition;

3) submits final safety statistics and the completed safety file to the *Employer*'s BU Safety department for close-out and filing; and

4) completes the required close-out report (including Annexure D form as per 32-726, where applicable to this Contract).

2.5 Environmental constraints and management

1) The *Contractor* complies with all applicable national, provincial and municipal environmental legislation and by-laws, and with Eskom environmental procedures, policies and site rules applicable to the Affected Property for the duration of the Contract.

2) Without limiting clause 1 above, compliance includes:

   a) National Environmental Management Act, 1998 (Act 107 of 1998) (including the duty of care to prevent and remediate environmental harm);
   b) National Water Act, 1998 (Act 36 of 1998);
   c) National Environmental Management: Waste Act, 2008 (Act 59 of 2008); and
   d) the site's ISO 14001 Environmental Management System requirements, where applicable.

3) The *Contractor* prepares, submits and implements a site-specific Environmental Method Statement for acceptance by the *Project Manager* before commencement of any Works on Site. The Environmental Method Statement addresses, as a minimum:

   a) identification of potential environmental impacts of the Works and the controls to prevent harm;
   b) management of waste streams (including scrap metal, packaging, insulation waste and general waste);
   c) handling, storage and use of hazardous substances and spill prevention/response;
   d) stormwater protection and wastewater management (including preventing debris, swarf, sealants, coatings or wash-water entering drains);
   e) noise, dust and emission control; and
   f) protection of any environmentally sensitive areas identified by the *Employer*/site (where applicable).

4) Waste management forms part of the Environmental Method Statement and includes:

   a) identification of waste streams;
   b) temporary storage arrangements and demarcated storage areas;
   c) lawful disposal routes for each waste type, using licensed facilities; and
   d) contingency actions in the event of an environmental incident.

5) The *Contractor* provides Safety Data Sheets (SDS) for all hazardous substances brought onto the Site and complies with the Regulations for Hazardous Chemical Agents (as amended) made under the Occupational Health and Safety Act.

6) The *Contractor* immediately reports any environmental incident, spill, uncontrolled release, or potential non-compliance to the *Employer*/*Project Manager* and implements containment and remediation actions in accordance with site requirements and the *Contractor*'s accepted Environmental Method Statement.

7) The *Contractor* plans and executes its activities in accordance with the principle of zero harm to the environment, applying best practice and the duty of care throughout the Contract. The *Employer* monitors compliance through audits and inspections.

8) The *Contractor* notes that Eskom Power Stations may be located in environmentally sensitive areas. The *Contractor* acquaints itself with all applicable statutory and local environmental requirements and adheres to these without exception.

9) Asbestos / suspect hazardous materials: If any material suspected to contain asbestos is encountered or disturbed, the *Contractor* stops work in the affected area, secures the area, and notifies the *Project Manager* immediately. Any work involving asbestos-containing material must comply with the Asbestos Abatement Regulations, 2020 (as amended) and any site requirements.

2.6 Quality assurance requirements

1) The *Contractor* implements and maintains a Quality Management System certified to ISO 9001:2015 (or an equivalent internationally recognised standard). Where the *Contractor* does not have a certified QMS, the *Contractor* establishes a project-specific quality management plan acceptable to the *Supervisor*.

2) The *Contractor* develops and submits a Project Quality Plan (PQP) and Quality Control Plan (QCP), including relevant installation procedures and quality check sheets, for the *Supervisor's* acceptance at least fourteen (14) calendar days before commencement of any Works or inspections.

3) The PQP and QCP include, as a minimum:

   a) quality objectives, organisation and responsibilities
   b) document and record control;
   c) control of subcontractors and suppliers;
   d) procedures for managing non-conformances, corrective and preventative actions;
   e) inspection and audit programme;
   f) identification of inspection points, Witness Points and Hold Points; and
   g) final documentation, as-built requirements and handover / close-out requirements.

4) The *Contractor* clearly identifies Witness Points and Hold Points in the QCP/ITPs for quality-critical activities applicable to these Works, including, as a minimum:

   a) verification of existing conditions prior to fabrication/installation (site measurements, interfaces, support spacing and fixing conditions);
   b) staged removal of existing roof/cladding and inspections of substrates/supporting steelwork prior to covering up;
   c) repairs, surface preparation and corrosion protection to any affected steelwork or interfaces (where required);

d) insulation removal/reinstatement and continuity at interfaces (where applicable);
e) installation of roof sheeting system (including clips/fixings, laps, penetrations, terminations and edge details);
f) installation of wall cladding system (including fixings, laps, penetrations, terminations and closures);
g) installation of flashings, ridge/vent components, closures and seals;
h) installation/reinstatement of gutters, outlets and downpipes, including leak prevention at joints and interfaces;
i) waterproofing works at hatches, penetrations and vulnerable junctions (where applicable);
j) installation of permanent access system (catladder) including fixings/supports;
k) final inspection, snag/punch list close-out, and weathertightness verification appropriate to the Works; and
l) compilation and submission of the final quality data pack (databook), including material certificates, test/inspection
m) records, NCR close-out evidence, warranties/guarantees and as-built information.

5) The *Contractor* notifies the Supervisor at least five (5) Working Days in advance of any Witness or Hold Point (or longer where required by the Works Information or to coordinate off-site inspections). The *Contractor* does not proceed beyond a Hold Point without written release by the Supervisor.

6) All quality assurance processes apply equally to work executed outside the primary working areas, including off-site fabrication, pre-assembly and supplier inspections where applicable.

7) The *Contractor* grants the *Employer* and *Supervisor* access (on reasonable notice) to relevant quality records, inspections and tests for auditing or verification.

8) All inspections and quality control activities are documented and included in the final data pack. The *Contractor* submits progressive quality records during execution and the complete data pack prior to Completion (or as otherwise stated in this Works Information).

9) Where the *Contractor* maintains an official QMS, the level of self-certification and inspection of supplied materials is agreed with the *Supervisor* before Works begin.

10) All personnel involved in quality-related activities are trained, competent and suitably experienced for the tasks assigned.

11) Monitoring and measuring equipment is calibrated and traceable to recognised standards, and calibration records are retained on site and made available on request.

12) All quality-related submissions comply with the requirements of the Supplier Quality Management Specification (240-105658000) and are submitted at least fourteen (14) calendar days before execution, unless otherwise accepted by the Supervisor.

13) The *Employer*'s/*Supervisor's* acceptance of any quality plans, procedures or documentation does not relieve the *Contractor* of its contractual obligations regarding quality compliance.

2.7 Programming constraints

The *Contractor* develops and maintains a programme for the Works in accordance with Clause 31 of the Conditions of Contract.

1) The programme is prepared using Microsoft Project (native .mpp format), and issued with a PDF version for review.

2) The programme is detailed, logically linked, and clearly indicates:
   a) the Starting Date and Completion Date;
   b) the order, duration and timing of all activities necessary to Provide the Works;
   c) all key *Contractor* submissions and acceptance/review periods, including as a minimum:
      i. surveys/verification and as-built (record) information;
      ii. shop/workshop drawings and installation detailing;
      iii. method statements and risk assessments linked to work fronts;
      iv. PQP/QCP/ITPs and identified Witness/Hold Points;
      v. material/product submissions and lead times (roof/cladding, fasteners, sealants, gutters/rainwater goods, catladder/access system);
   d) The time for the *Employer*/Supervisor to review and accept *Contractor* submissions;
   e) the Accepted baseline dates versus actual progress and forecast dates (including remaining duration); and
   f) The works and activities of the *Employer* and Others, including, as a minimum:
      vi. site access arrangements and inductions;
      vii. permit to work/working area handovers and any operational constraints;
      viii. inspection attendance for Witness/Hold Points; and
      ix. any other site activities or constraints imposed by station operations or maintenance.

3) The programme includes, as a minimum, milestones and logic for:
   a) mobilisation and access/temporary works (scaffolding/MEWPs, edge protection, lifting/rigging arrangements);
   b) staged/sequenced removal of existing roof and cladding, including temporary weatherproofing/protection
   c) between stages (where required by the chosen methodology);
   d) inspections of substrates/supporting steelwork prior to covering up, and any required repairs/corrosion protection;
   e) installation of replacement roof sheeting system, including interfaces (flashings, ridges/vents, penetrations, gutters/outlets/downpipes);
   f) installation of replacement wall cladding system including interfaces (flashings, closures, penetrations and terminations);

g) waterproofing at vulnerable junctions/hatches/penetrations (where applicable);
h) installation of catladder / permanent access system;
i) final inspection, snag/punch list close-out, and weathertightness verification appropriate to the Works; and
j) compilation and submission of the final close-out pack (quality records, warranties/guarantees and as-built information).

4) The programme also indicates:
   a) the project critical path;
   b) time risk allowances and float where applicable;
   c) activity calendars and any planned non-working periods; and
   d) The impact of constraints relevant to roof/cladding works, including (as applicable):
      i. permit requirements and working area handover limitations;
      ii. working at height constraints and access limitations;
      iii. weather limitations affecting roof works (wind/rain) and protection requirements; and
      iv. sequencing required to maintain safe station operations and building protection.

5) The *Contractor* submits the initial baseline programme within two (2) weeks of the Starting Date (or within the period stated in the Contract Data, where different).

6) The *Contractor* submits programme updates to the *Project Manager* at least fortnightly during active execution, and weekly when instructed by the *Project Manager* or when risk/constraint conditions require closer control.

7) The *Contractor* submits a revised programme whenever required by the Contract or instructed by the *Project Manager*.

8) Each update clearly states:
   a) changes from the previous submission (including logic and durations where changed);
   b) actual progress to date;
   c) the current forecast Completion Date; and
   d) The status of *Employer* and Others' activities is shown on the programme.

9) No Works are undertaken by the *Contractor* which materially affect station operations, access control, permit conditions, safety controls, or continued weather protection of the Machine Hall unless formally coordinated with the *Employer* and reflected in the programme.

2.8 *Contractor*'s management, supervision and key people

In addition to the requirements stated elsewhere in this Works Information and the Conditions of Contract, the *Contractor* ensures that:

1) The Works are managed and supervised by competent, suitably experienced personnel appropriate to roof and cladding replacement works at height.

2) The *Contractor* nominates a full-time Site/Construction Manager responsible for day-to-day control of the physical construction activities and coordination of resources, safety, access and quality on Site. This person must:
   a) is appointed in writing by the *Contractor* and has a clear job description;
   b) has delegated authority to make decisions on behalf of the *Contractor*; and
   c) is full-time on-site whenever physical Works are being carried out.

3) The nominated Site/Construction Manager is registered with SACPCMP as either:
   a) Professional Construction Manager (PrCM); or
   b) Professional Construction Project Manager (PrCPM); or
   c) equivalent demonstrated competence acceptable to the *Project Manager*.

4) The *Contractor* provides an alternate suitably competent person (deputy) to act in the absence of the nominated Site/Construction Manager and submits the alternate's details for the *Project Manager*'s acceptance before site works commence.

5) The *Contractor* submits an organogram within two (2) weeks of the Starting Date (or earlier if requested), showing:
   a) Key people allocated to the Contract;
   b) lines of authority and communication within the *Contractor*'s organisation;
   c) reporting lines between the *Contractor*, subcontractors and *Employer* representatives; and
   d) roles/responsibilities for HSE, quality, supervision and temporary works/access (as applicable).

6) All key people:
   a) are suitably qualified, competent and experienced for their roles;
   b) are available for relevant meetings and inspections; and
   c) are conversant with the Works Information, Contract requirements and applicable Eskom site rules/procedures.

7) The *Contractor* notifies the *Project Manager* of any proposed change to key personnel. Replacement of key personnel is subject to the *Project Manager*'s acceptance. Acceptance does not reduce the *Contractor*'s responsibilities under the Contract.

8) No person fills multiple key positions simultaneously unless accepted in writing by the *Project Manager*.

9) The *Contractor* maintains adequate supervision at all times while the works are taking place in the Working Areas.

2.9 Invoicing and payment

1) Within one week of receiving a payment certificate from the *Project Manager* in terms of clause 51.1, the *Contractor* submits a tax invoice to the *Employer*, showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate.

2) The *Project Manager is* to be copied in on all electronic invoices emailed.

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

4) The *Contractor*'s Tax Invoices comply with the requirements as stated in clause Z7 of the Contract Data

5) Invoices are submitted electronically to:

- Local Eskom Invoices - invoiceseskomlocal@eskom.co.za
- Foreign Eskom Invoices - invoiceseskomforeign@eskom.co.za

6) The following details are required when submitting invoices and additional data:
   a) The subject line of your email should only contain your vendor number.
   b) Each PDF invoice should be named only with your invoice number.
   c) All electronic invoices are sent in PDF format only.
   d) Attach the proof of delivery to your invoice.
   e) Where applicable, supporting documents are attached to the scanned PDF invoice as one attachment.
   f) A copy of the signed assessment certificate
   g) CPA calculation sheet
   h) Retention Certificate, which is a retention invoice.
   i) Any other appropriate documents, e.g.
      i. For shipping invoices, please ensure the following documents are attached.
      ii. Invoice (this should only reflect the shipping cost)
      iii. Commercial invoice
      iv. Delivery note
      v. Your shipping cost calculation is relevant to that invoice—not a generic one (the amount of the shipping cost calculation has to balance with the amount on the invoice).
      vi. Forwarding agent's invoice
      vii. The customs document.

   j) Please do not attach unnecessary documents, as this will make the file too large.

7) Other requirements:
   a) For foreign invoices, suppliers will still be required to physically deliver hard copies of original documents to the respective Document Management centres, even though the invoices have been submitted electronically.
   b) Ensure compliance with the tax requirements for electronically submitting invoices.

c) Each PDF should contain one credit note, one debit note, or one credit note only. More than one invoice can be submitted per email.

d) Any CPA-applicable invoices are invoiced separately, so that if there are issues with the CPA, the rest of the invoices can be paid while the CPA issues are resolved.

8) Include the following information on the invoice:

a) Name and address of the *Contractor* and the *Project Manager*

b) The contract number and title

c) *Contractor*'s VAT registration number

d) The *Employer*'s VAT registration number 4740101508

e) The total amount invoiced, excluding VAT, the VAT and the invoiced amount including VAT

f) *Contractor*'s company registration number, if applicable

g) *Contractor*'s banking details

h) Name and address of the recipient

i) Tax invoice number and date of issue

j) Description of goods/services provided

k) Quantity or volume of goods/services

l) Period time for which the Tax Invoice is being rendered

m) Relevant Task Order Number (commencing with a 45 prefix)

n) Relevant line-item number

o) State whether the value-added tax is included or excluded

2.10 Insurance provided by the *Employer*

Insurance by the *Employer* is managed per section 87 of the core clauses in ECC3.

2.11 Contract change management

Contract change management is carried out strictly in accordance with Core Clause 6 (Compensation events) and Core Clause 16 (Early warning). In addition, the following applies:

1) The *Project Manager* maintains and issues updates to the Early Warning Register / Risk Register and records compensation event matters for contract administration and tracking.

2) Either Party gives an Early Warning as soon as it becomes aware of any matter which could increase the total of the Prices, delay Completion, delay meeting a Key Date, or impair the performance of the Works in use. Early Warning matters are discussed and managed through the Early Warning/risk process.

3) Compensation Events are notified by the Party required to do so under the Contract. Notifications are issued as formal communications in accordance with Clause 13.

4) Quotations (Clause 62) For each Compensation Event where a quotation is required:

a) The *Contractor* submits a formal quotation within the required time, clearly stating:

i. The event reference and description.
ii. the forecast time effect (including impact on the Accepted programme);
iii. the forecast cost effect (including supporting records and assumptions); and
iv. any supporting information required by the *Project Manager*.

b) The *Project Manager* assesses and responds in writing in accordance with Clause 62.

5) Any change affecting the Works Information, the Prices/Price List, or the Accepted programme is managed through the ECC processes and must be formally recorded through the relevant NEC communications and actions. The *Contractor* does not implement changes that alter the Scope/Works Information unless and until instructed/accepted by the *Project Manager* in accordance with the Contract.

6) The *Contractor* notifies the *Project Manager* in writing of any proposed subcontractor changes and provides the reason and any potential impact on quality, programme, safety and interfaces. The *Contractor* does not implement such changes where the Contract requires acceptance, unless accepted by the *Project Manager*.

7) Any changes to delivery dates, milestones or sequencing arising from Early Warnings and/or Compensation Events are reflected in the next programme submission and, where applicable, in the revised programme submitted with a quotation.

2.12Provision of bonds and guarantees

1) The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

2) The *Contractor* provides the required bond or guarantees within two (2) weeks of the Contract Date.

3) The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required under this contract has been received and formally accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment by the *Employer* does not affect the *Employer*'s right to termination as stated in this contract.

4) The *Contractor* ensures that any bond or guarantee submitted:
a) Is issued by an insurer or financial institution acceptable to the *Employer*.
b) Complies with the wording and format prescribed in Document C1.3 Sureties.
c) Remains valid for the full duration required under the Contract, including any agreed extensions.

5) The *Contractor* promptly provides replacement guarantees should any guarantee provided cease to be valid for any reason during the execution of the Works.

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

The *Contractor* keeps and maintains proper records of Defined Cost, payments and assessments of Compensation Events, in accordance with **Clause 52.2** of the Conditions of Contract.

The following records are kept to a minimum:

Type of Cost	Type of Record
People employed by the *Contractor* (labour)	Signed timesheets, payroll reports, payslips
People employed by Subcontractors (labour)	Signed timesheets, certified payroll reports from Subcontractors
Equipment owned or hired	Equipment hire agreements, delivery notes, usage logs, plant daily reports and actual paid invoices
Plant and Materials	Delivery notes, invoices, stock issue records, material usage records and actual paid invoices
Work*s* subcontracted by the *Contractor*	Subcontract agreements, invoices, proof of payment, and relevant correspondence
Other Third-Party Costs	Third-party invoices, proof of payment
Accommodation	Invoices, proof of payment
Transport and Logistics	Vehicle logs, fuel records, transport invoices
Testing and Certification	Test certificates, inspection reports, laboratory results, calibration certificates
Insurance Costs (if reimbursable)	Insurance policy documents, premium invoices, proof of payment

2.14Training workshops and technology transfer

1) The *Contractor* provides training to the *Employer*'s nominated personnel on the inspection, operation (where applicable) and maintenance requirements associated with the completed Works. Training is practical and site-specific and is aligned to the installed systems and the *Contractor*'s recommended maintenance philosophy.

2) Training includes, as a minimum:
   a) inspection requirements for the roof sheeting system and wall cladding system, including typical defect indicators (e.g., loose components, damaged flashings, failed seals, blocked drainage paths, corrosion initiation points);
   b) inspection and maintenance of interfaces and waterproofing details, including penetrations, hatches, junctions, flashings, closures, sealants and coatings (where applicable);
   c) inspection, cleaning and maintenance of rainwater goods (gutters, outlets and downpipes) to prevent overflow and water ingress;
   d) safe access requirements for routine inspections, including the catladder/permanent access system, and any limitations or safety precautions; and

e) Recommended inspection intervals and preventative maintenance actions in accordance with manufacturer requirements and the *Contractor*'s maintenance philosophy.

3) The *Contractor* submits a written maintenance philosophy and maintenance recommendations for the installed systems. This includes, as a minimum:
   a) recommended inspection frequency (routine and post-severe weather);
   b) cleaning requirements (e.g., debris removal from roof/drainage systems);
   c) limitations and precautions applicable to the roof/cladding systems (including fixings, sealants and coatings); and
   d) recommended repair approach for minor defects (e.g., sealant renewal, flashing repair/replacement), without reducing the *Contractor*'s obligations under the Contract and defects provisions.

4) Training is completed before Completion (or by an agreed milestone), and attendance records are provided to the *Project Manager* as part of the close-out documentation

3. Engineering and the *Contractor*'s design

3.1 *Employer*'s design

The *Employer* specifies the required steel roof sheeting and side sheeting systems, associated fittings and performance requirements in this Works Information. The *Contractor* is responsible for the full execution, detailing, setting-out and installation of the roofing and side sheeting systems, including all interfaces, in accordance with applicable standards and the relevant manufacturer's specifications for the accepted products.

Before commencing any installation works, the *Contractor* shall:

1) perform an initial assessment of the Works and verify existing conditions and interfaces;

2) Take actual site measurements for the secondary protection system (sheets fixed to the underside of the existing steel purlins and trusses) and for all roof and side sheeting interfaces;

3) prepare and submit existing-condition ("as-is") record drawings based on the site measurements for Acceptance by the *Project Manager* or *Supervisor* (as applicable); and

4) after Acceptance of the "as-is" information, prepare and submit the required shop/installation drawings and associated details, issued as Accepted for Construction (AFC).

Installation of any new sheeting, cladding or secondary protection system may commence only after the relevant shop/installation drawings and associated method statements, and quality documentation have been Accepted in writing in accordance with the Contract.

Acceptance does not relieve the *Contractor* of responsibility for the correctness, completeness and performance of the Works.

3.1.1 *Contractor*'s responsibility as defined and required by the *Employer*'s design

1) The *Contractor* is responsible for the full execution and installation of the new roof sheeting and wall cladding systems, including all associated components and interfaces, and ensures the Works are executed in accordance with applicable standards and the relevant manufacturer's specifications for the accepted systems.

2) The *Contractor* replaces, as applicable to the scope, all roof sheeting, side sheeting, ridge/cappings, flashings, closures, sealants and roof ventilators with new elements compatible with (and matching) the existing arrangement and profiles, unless an alternative is Accepted.

3) The *Contractor* provides the Works such that the roof and cladding system is leak-free and watertight and is capable of performing under the expected environmental conditions, including wind-driven rain, temperature variations and corrosive atmospheric exposure. The minimum design wind resistance

requirement is 50 m/s (or a more onerous requirement if required by law/standard/manufacturer for the installed system).

4) The *Contractor* may propose alternative products, profiles or systems (e.g., thicker sheeting or a different locking mechanism) to improve performance or constructability. Any alternative proposal must be submitted with full technical substantiation (datasheets, compliance evidence, fixings, warranties/guarantees, and installation methodology) and may not be implemented unless Accepted by the *Project Manager*.

5) The *Contractor* develops full detailed workshop/shop drawings and installation details for the installation of sheets fixed to the underside of the existing steel trusses/purlins (secondary protection system). These drawings include, as a minimum:
   a) all alterations and interfaces required for installation;
   b) cat ladder / permanent access system details and supports;
   c) access hatches associated with cat ladders; and
   d) removable panels over any crawl crane beams (where applicable) and all associated fixing and sealing details.

6) The *Contractor* provides all access systems and temporary works required to inspect and execute the Works (including cherry pickers/MEWPs and/or fixed/mobile scaffolding). Temporary works are designed, certified and managed in accordance with the Contract and site requirements.

7) Where minor on-site fabrication is required, the *Contractor*:
   a) identifies such work in the method statement and programme;
   b) coordinates with the *Employer* regarding the designated area and site controls; and
   c) ensures any such activities comply with site safety, environmental and permit requirements.
   d) Agreement on a fabrication area or controls does not transfer design or quality responsibility to the *Employer*.

8) The *Contractor* develops and implements a specific Plant and critical Equipment Protection Plan, separate from general protection measures, to ensure ongoing station operations are not adversely affected. During dismantling and reinstatement, the *Contractor* ensures the Machine Hall equipment is protected at all times and that there is no water ingress and/or debris falling onto station employees, visitors, generating units or equipment.

9) The *Contractor* submits a detailed method statement describing measures to prevent falling objects and debris from impacting plant and equipment below, including exclusion zones, netting, catch platforms, temporary coverings and any required hoarding. Where temporary hoarding is required, it is included in the project plan and method statement and implemented only after Acceptance.

10) The *Contractor* updates and submits as-built (record) drawings and documentation to the *Project Manager* for Acceptance. As-built information includes, as a minimum, descriptions of the installed systems, product data, interfaces and details specific to the installation.

11) Prior to site establishment and commencement, the *Contractor* communicates to the *Employer* any specific requirements or proposed methods intended to improve safety, time or cost efficiency, provided these do not reduce compliance with the Works Information. The *Employer* may engage in such deliberations. The *Employer* is not liable for failure to support *Contractor* preferences beyond what is required under the Contract.

3.1.2 General dismantling and removal (as required by the *Employer*'s design)

1) The *Contractor* dismantles and removes the existing roof sheets and associated fixing components (including connection plates/clips/fasteners as applicable) with due care to prevent further damage to existing purlins, trusses, girts, gutters, ventilators and adjacent elements which are to remain in service.

2) The *Contractor* removes damaged roof insulation in a controlled manner, taking care not to disturb or damage adjacent insulation and components that are not scheduled for removal, and ensuring that loose debris is contained at all times.

3) The *Contractor* removes ridge cappings, flashings, closures and roof ventilators affected by the Works and replaces them with new components as required by this Works Information and the accepted manufacturer system requirements.

4) The *Contractor* plans and executes dismantling/removal sequentially and in controlled work fronts to maintain safety, prevent uncontrolled exposure of the building interior, and prevent water ingress during the Works. Where temporary weather protection is required between stages, it is provided and maintained by the *Contractor* as part of the method statement.

5) The *Contractor* liaises with the *Employer* regarding the handling of removed materials. A designated spoil/storage area will be identified by the *Employer* for temporary storage of removed sheeting and related components. Removed materials are stacked and secured to prevent windblown debris, injury and damage.

6) All removed/damaged materials are replaced with the specified new materials and installed to tie in seamlessly with adjacent existing construction and interfaces (including gutters and stormwater components). Where an interface condition prevents a compliant tie-in, the *Contractor* notifies the *Supervisor* and submits a proposed detail for Acceptance before proceeding.

7) The *Contractor* submits for Acceptance (before installation) the relevant material/product submissions and the installation details applicable to the replacements (including roof sheeting, insulation, purlins/trusses repair/replacement where applicable, flashings, ventilators and gutters).

8) The *Contractor* ensures the completed works are weathertight and watertight, with no water ingress through the replaced envelope elements, and achieves the required performance stated elsewhere in this Works Information.

9) The *Contractor* provides activity-specific method statements and QCP/ITPs for dismantling/removal and associated repair works, including inspections/hold points prior to covering up, for Acceptance by the *Supervisor*/*Project Manager* (as applicable).

10) During all dismantling and reinstatement activities, the *Contractor* protects the Machine Hall equipment and units below from falling objects, debris, dust and water ingress, and implements the accepted plant/equipment protection measures and exclusion controls.

3.1.3 Roof sheeting and side sheeting (as required by the *Employer*'s design)

1) The *Contractor* procures, supplies and installs the new roof sheeting and side sheeting systems as specified in this Works Information, including all clips, brackets, fasteners, flashings, closures, sealants and accessories required for a complete and compliant system installation. Fixing and installation are executed strictly in accordance with the relevant manufacturer's requirements for high wind exposure and the stated environmental conditions.

2) Roof sheeting (primary roof envelope):
   a) The roof sheeting used for replacement is 0.58mm "Kliplok 406 Colorplus AZ200" rolled from G550 steel (Heavy Industrial) rolled in continuous length (or equal approved) with Colorbond Ultra finish of approved standard colour on one side and standard grey backing finish on reverse side, fixed to steel purlins or rails (colour to match surrounding buildings) and fixed, in strict accordance with manufacturer's specifications by a Approved Contractor.
   b) A written and approved five-year guarantee of watertightness shall be issued after approval of the roofs by the manufacturer
   c) Klip-Lok 406, 0.58 mm thick, roll-formed from G550 steel in continuous lengths, with COLORPLUS AZ200 coating (or equal approved).
   d) Colour: To match existing.
   e) Clips are installed in a continuous manner as required by the manufacturer (continuous fixing arrangement to achieve the required wind resistance and performance).

3) Side sheeting: All side sheeting to be replaced.

   a) The side sheeting used for replacement is IBR 686 0.58mm "Colorplus AZ200" rolled from G550 steel (Heavy Industrial) rolled in continuous length (or equal approved) with Colorbond Ultra finish of approved standard colour on one side and standard grey backing finish on reverse side, fixed to steel side sheeting rails/girts (colour to match surrounding buildings) and pierced fixed, in strict accordance with manufacturer's specifications by a Approved Contractor.

   b) A written and approved five-year guarantee of watertightness shall be issued after approval of the roofs by the manufacturer

c) All fixing holes shall be drilled and not punched. Fixing is to the existing steel side sheeting rails or girts using D1 Starting clips, D2 Duplex clips and S3 Finishing clips (or Accepted manufacturer-approved equivalent) with SANS 1273: Class 3 200 fasteners, strictly in accordance with the manufacturer's requirements.

4) The roof and side sheeting systems are selected and installed to perform under the following conditions (and any more onerous requirement imposed by law/standard/manufacturer for the installed system)

a. Installation region: Inland.

b. Atmospheric corrosion category: C5.

c. Sheet coating: AZ200 (or equivalent).

5) The *Contractor* provides a written minimum five (5) year watertightness warranty/guarantee for the installed roof and side sheeting systems, supported by the manufacturer/system supplier issued at handover/close-out in accordance with the Contract and subject to compliance with the manufacturer's installation requirements.

6) The *Contractor* removes damaged roof insulation with due care to avoid disturbing adjacent unaffected insulation, and supplies and installs replacement insulation where required to match the existing functional arrangement and interfaces. The *Contractor* allows for this work in the programme and Prices.

7) All works are executed in accordance with applicable regulatory and statutory requirements (including relevant SANS) and applicable Eskom standards (including those relevant to structural steel and building envelope works).

8) Notwithstanding the above, the *Contractor* submits detailed method statements and product/system information for each portion of the Works (including roof/side sheeting, clips/fixings, coatings, sealants and insulation) for Acceptance by the *Project Manager*/*Supervisor* (as applicable) and proceeds with installation only after Acceptance.

9) During execution, the *Contractor* promptly notifies the *Employer* of any additional urgent defects or repairs identified which may affect watertightness, safety, or the integrity of the installed system, and submits proposed corrective actions for Acceptance before proceeding.

3.1.4 Ridge cappings, flashings and roof ventilators (as required by the *Employer*'s design)

1) The *Contractor* supplies and installs all ridge cappings, flashings, closures and associated accessories required to complete a weathertight roof and cladding system. Installation is carried out strictly in accordance with the manufacturer's requirements for the Accepted roof/side sheeting system, including requirements for high wind exposure and the applicable environmental conditions.
2) Ridge capping:
   a) New ridge cappings are pre-finished 0.58 mm Colourplus sheeting (or equivalent), with a maximum girth of 900 mm, colour to match the existing sheeting.

b) Ridge cappings are fixed using S10 brackets (or an accepted equivalent).

c) Where roof sheets are 30 m or longer, ridge detailing includes the use of sliding brackets at the apex (or manufacturer-approved equivalent) to accommodate thermal movement, in accordance with the manufacturer's requirements. Ridge capping laps and joints are formed and sealed in accordance with manufacturer requirements to prevent wind-driven rain ingress.

3) Flashings:

a) New flashings are ZincAL AZ200, 0.58 mm coated steel with Colourplus finish to one side and standard backing coat, colour to match the existing sheeting (or equivalent).

b) Flashings are fixed using S1 brackets (or an accepted equivalent).

c) Where roof sheets are 30 m or longer, apex flashing detailing includes the use of sliding brackets (or manufacturer-approved equivalent) to accommodate thermal movement, in accordance with the manufacturer's requirements.

d) Positive fixing using self-tapping screws is the preferred fixing method for side and ridge flashings, subject to manufacturer requirements and the Accepted system detailing.

4) Roof ventilators/ridge vents:

a) All roof ventilators, including damaged components, are removed and replaced with new units.

b) Replacement ventilators are the same type as the existing units, or an equivalent alternative Accepted by the Supervisor.

c) Where the existing ventilator type cannot be sourced, the *Contractor* submits a proposed alternative ventilator type with full technical substantiation (datasheets, compliance, interface details and installation method) for Acceptance before procurement and installation.

d) Roof ventilators comply with the relevant SANS requirements and Eskom standards and are installed by a competent/approved installer in accordance with the manufacturer's requirements.

5) The *Contractor* seals all roof openings and interfaces to prevent water ingress, including (as a minimum) apex/ridge interfaces, side flashing interfaces, barge flashing interfaces, penetrations and terminations, in accordance with the manufacturer's requirements for the Accepted system.

3.1.5 Purlins and trusses (as required by the *Employer*'s design)

1) The *Contractor* inspects the trusses and purlins as areas are opened up during dismantling/removal of the existing roof sheeting and associated elements.

2) Defective or damaged purlins:

a) Any defective, damaged or materially corroded purlins are identified to the Supervisor without delay.

b) Where replacement is required and Accepted, the damaged purlins are removed and replaced full length between trusses, with purlins of similar size, thickness and section properties, compatible with the existing structural arrangement.

c) Replacement purlins are pre-galvanised and coated/painted to match the existing finish and corrosion protection system (or equivalent).

3) Truss member damage:
   a) Localised damage to truss members is identified to the Supervisor.
   b) Where repair is required and Accepted, the *Contractor* repairs the affected members in accordance with an Accepted repair methodology to ensure the long-term structural integrity of the truss system.
   c) The repair methodology submission includes, as applicable, the repair approach, materials, surface preparation, corrosion protection/coating reinstatement, and quality control hold points.

4) The *Contractor* promptly notifies the *Employer* of any additional urgent defects noted which may affect safety, watertightness, structural integrity or execution of the Works, and proposes corrective actions for Acceptance before implementation.

3.1.6 Gutters and downpipes (as required by the *Employer*'s design)

1) All gutters and downpipes (RWDPs) affected by or associated with the Works are cleaned internally and externally to remove all dirt, debris, vegetation, sediment and any other obstructions that may impede drainage.

2) Gutters and downpipes are cleaned of loose rust, corrosion products and unsound coating, and are prepared and repainted in accordance with the *Employer*'s corrosion protection requirements (or an equivalent coating system Accepted by the Supervisor).

3) The *Contractor* ensures that, upon completion, gutters, outlets and downpipes function effectively, are free-flowing, and do not contribute to overflow, ponding or water ingress at interfaces.

4) The *Contractor* submits the proposed surface preparation and coating repair methodology (including product data, application method and quality checks) for Acceptance prior to repainting works.

3.1.7 Procedure for submission and Acceptance of *Contractor*'s alternative proposals or reports

1) Where the *Contractor* proposes any alternative (materials, profiles, fixing systems, details, methods or sequencing) or submits reports/drawings/calculations in support of the *Employer*'s design requirements, the *Contractor* submits the information to the *Project Manager*/*Supervisor* (as applicable) for Acceptance in accordance with the communication and document control requirements of this Works Information.

2) Each submission is complete, clearly referenced, and includes (as applicable):
   a) general arrangement and layout drawings;
   b) detail drawings for interfaces, terminations and penetrations;
   c) calculations and key diagrams where required to substantiate performance;
   d) manufacturer technical literature and compliance evidence (including installation requirements);
   e) an investigation and photographic report describing the current condition and extent of affected areas (where relevant); and
   f) proposed warranties/guarantees associated with the alternative system or repair.

3) Acceptance by the *Project Manager*/*Supervisor* indicates that the submission has been reviewed for general alignment with the Works Information. Acceptance does not:
   a) relieve the *Contractor* of responsibility for the correctness, completeness and suitability of the submission;
   b) change the *Contractor*'s obligations to Provide the Works in accordance with the Works Information and the Conditions of Contract; or
   c) exonerate the *Contractor* from any warranties/guarantees and liabilities under the Contract.

4) All correspondence and submissions are clearly identified as relating to this Contract and are issued under cover of formal letters/transmittals in accordance with Sections 2.2 (Documentation control) and 2.3 (Communication requirements).

5) Manufacturer warranties (including paint/coating manufacturer warranties where applicable) and the *Contractor*'s workmanship guarantees are issued to the *Employer* at Completion as part of the close-out documentation.

3.1.7.1 Time required for Acceptance of reports, drawings and calculations

1) The *Contractor* allows in the programme for review and Acceptance periods by the *Project Manager*/*Supervisor* (as applicable).

2) Unless otherwise stated in the Contract Data or instructed by the *Project Manager*, the following review periods apply from receipt of a complete submission:
   a) General reports, drawings and calculations: Not later than fourteen (14) days after receipt, the *Project Manager* returns the submission marked "Accepted", "Accepted as Noted" or "Not Accepted".
   b) Execution-critical documentation (including shop/installation drawings, method statements, QCP/ITPs, and any submission required prior to commencement of a specific activity or inspection): Not later than two (2) weeks after receipt, the *Project Manager* returns the submission marked "Accepted", "Accepted as Noted" or "Not Accepted".

3) Where a submission is "Not Accepted", the *Contractor* revises the submission to address the stated comments and resubmits in the same manner as the original submission. Each revision clearly indicates the revision number, date and description of changes in the revision block and/or transmittal.

4) The *Contractor* submits execution-critical documentation at least two (2) weeks before the planned start of the relevant activity or inspection, unless a different period is Accepted by the *Project Manager*.

5) Effect of Acceptance:
   a) The *Contractor* may proceed with the relevant activity only after the required submission is Accepted (or Accepted as Noted, subject to implementing the notes).
   b) Acceptance does not relieve the *Contractor* of responsibility for the correctness, completeness and performance of the Works.

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

The Works are primarily the implementation of the *Employer*'s specified requirements. However, the *Contractor* is responsible for the design, detailing and/or engineering of the following to the extent necessary to Provide the Works:

1) Temporary works and access design required to execute the Works safely and without damage to the Affected Property, including (as applicable): scaffolding/MEWPs, working platforms, edge protection, netting/catch platforms, exclusion controls, temporary supports, lifting/rigging arrangements, and temporary weatherproofing/protection.

2) Detailing and shop/installation drawings necessary to install the specified roof/cladding systems and associated elements, including interfaces, terminations, penetrations, hatches, removable panels over crawl crane beams (where applicable), and all fixing and sealing details.

3) Secondary protection system detailing (sheets fixed to the underside of the existing steel purlins and trusses), including fixings, interfaces and alterations necessary for installation, and any practical detailing required to suit actual site dimensions and constraints.

4) Cat ladder / permanent access system detailing, including brackets, fixings, base plates, fasteners and any associated safety accessories, and the suitability of the chosen system for the installation conditions.

5) Any alternative proposals for sheeting profiles, thicknesses, coatings, fixings, sealing systems or installation methods proposed by the *Contractor*. Any alternative is designed/substantiated by the *Contractor* and is not implemented unless Accepted

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

1) The *Contractor* submits the design particulars listed in 3.2 to the *Project Manager*/*Supervisor* (as applicable) for Acceptance in accordance with Clauses 21 and 13 of the Contract and Sections 2.2 and 2.3 of this Works Information.

2) Design submissions include, as applicable:
   a) design drawings (temporary works/access arrangements, weather protection and lifting/rigging layouts where relevant);
   b) shop/installation drawings and details for roof/cladding/secondary protection/interfaces;
   c) manufacturer installation requirements and system details for accepted products;
   d) calculations and/or design checks where necessary to demonstrate suitability (e.g., temporary works/access, fixings/supports where required);
   e) inspection points and hold/witness points linked to QCP/ITPs; and
   f) method statements linked to the design and detailing.

3) The *Contractor* clearly identifies on each submission:

a) Purpose of issue (For Acceptance / For Information / For Record);
b) revision and status (e.g., AFC where applicable);
c) assumptions, interfaces and constraints; and
d) the specific activity/work front to which it applies.

4) The *Contractor* does not commence the associated activity (or proceed beyond a Hold Point) until the relevant submissions are Accepted in writing.

3.4 Other requirements of the *Contractor*'s design

1) All *Contractor* design items (temporary works, access arrangements, detailing and interfaces) are compatible with:
   a) the existing structure and safe load paths;
   b) the *Employer*'s operational constraints and permit-to-work requirements; and
   c) the specified roof/cladding system performance requirements (including weathertightness and durability).

2) The *Contractor*'s design and detailing must not reduce or compromise:
   a) the specified corrosion protection requirements;
   b) the ability to maintain/inspect the installed systems safely (including use of the cat ladder/access system); or
   c) The performance requirements for wind-driven rain and environmental exposure.

3) The *Contractor* ensures all design and detailing is carried out by competent persons and is appropriately checked/verified before submission.

3.5 Use of *Contractor*'s design

1) The *Employer* may use, copy and retain *Contractor* design documents produced under this Contract (including drawings, details, calculations, method statements and product/system documentation) for purposes of:
   a) operating, inspecting and maintaining the roof/cladding and associated systems;
   b) maintaining and repairing the Affected Property;
   c) safety, regulatory and audit records; and
   d) future refurbishment, extension, alteration or replacement of the same or similar building envelope elements at the Affected Property.

2) Use of the *Contractor*'s design documentation by the *Employer* does not relieve the *Contractor* of its obligations or liabilities under the Contract.

3.6 Design of Equipment

1) The *Contractor* provides, designs (where applicable), supplies, installs, maintains and removes all Equipment required to execute the Works safely and efficiently, including (as applicable) scaffolding, MEWPs/cherry pickers, hoarding, edge protection, debris netting/catch platforms, temporary weather protection, lifting/rigging equipment and any other specialist access or protection systems.

2) The *Contractor* ensures that all Equipment and temporary works/access systems are:
   a) suitable for the intended purpose and site conditions (including wind exposure, working at height, and proximity to critical plant);
   b) designed/selected to safely withstand all loads and actions imposed during use;
   c) installed, inspected, tagged and maintained by competent persons; and
   d) compliant with applicable legislation and relevant standards (including relevant SANS requirements for scaffolding/temporary works and access equipment).
3) The *Contractor* implements Equipment and protection measures such that the Works can be executed without undue delay and such that critical plant and equipment are protected from falling objects, debris, dust and water ingress at all times.

4) Where the *Project Manager*/Supervisor instructs, or where bespoke/non-standard temporary works are proposed (including suspended or specially engineered scaffolding, hoarding/catch platforms, or temporary weatherproofing structures), the *Contractor* submits particulars for Acceptance prior to use. Submissions include, as applicable:
   a) design drawings and layout;
   b) design checks/calculations and load ratings;
   c) manufacturer certifications (where applicable);
   d) inspection and handover records; and
   e) Method statement and risk assessment linked to the Equipment and its use.

5) Acceptance of any particulars does not relieve the *Contractor* of responsibility for the adequacy, safety, legality and performance of the Equipment and temporary works.

3.7 Equipment required to be included in the works

1) The *Contractor* provides all plant, tools, equipment, and temporary works required to execute and complete the Works safely, efficiently and in accordance with this Works Information, including all mobilisation, operation, maintenance, supervision and demobilisation.

2) Without limiting the *Contractor*'s obligations, the *Contractor* includes (as applicable):
   a) access systems for working at height, including scaffolding, mobile towers, MEWPs/cherry pickers and working platforms;
   b) edge protection, lifelines/anchor points (temporary where required), fall-arrest and fall-prevention systems;
   c) debris control measures including netting, catch platforms, exclusion zone barriers and signage;

d) temporary weather protection/coverings and sealing measures required to prevent water ingress during staged dismantling and reinstatement;

e) lifting and rigging equipment (including cranes where required), certified and operated by competent persons;

f) lighting and temporary power where required for safe execution;

g) temporary hoarding and protection screens where required by the accepted method statements; and

h) all hand tools, cutting tools, fastening equipment and sealant/coating application equipment required for the roof/cladding installation and associated works.

3) The *Contractor* ensures Equipment selection and use does not damage existing structures, plant, roof members, cladding supports, gutters, services or any other part of the Affected Property.

4) Any Equipment necessary to protect operational plant and equipment below (including measures to prevent falling objects, dust, debris and water ingress) is included in the *Contractor*'s Prices.

3.8 As-built drawings, operating manuals and maintenance schedules

1) One (1) month before notification of Completion of the Works, the *Contractor* revises drawings where necessary to show the Works as installed and submits the drawings for Acceptance. Drawings are also submitted in an electronic format compatible with MicroStation Ver. 8 (Bentley Systems Inc.), DWG, one (1) PDF and two (2) hard copies in paper size A2.

2) After Acceptance, prints are provided as required, of the type and in such quantities as determined by the *Project Manager*. Drawings include those drawings necessary for the efficient maintenance of the Works. Where applicable, the required *Employer* coding (including KKS where used by the *Employer* for the relevant items) appears on the drawings.

3) Before a Certificate of Completion is issued, all as-built drawings and data must be provided to the *Project Manager* on completion of the Permanent Works. Any information in the possession of the *Contractor* which is necessary for the Supervisor to check the "as-built" drawings is supplied to the Supervisor on a regular basis, and all information is delivered before Completion is certified. Any information in the possession of the *Contractor* which is required under this Contract is supplied timeously to the Supervisor on a regular basis.

4) The *Contractor*'s drawings are produced and developed in accordance with the Eskom Drawing Standard and the document control requirements stated in Section 2.2 of this Works Information.

3.8.1 Pre-implementation documentation

The *Contractor* provides the following for Acceptance prior to implementation:

1) The *Contractor* generates existing-condition ("as-is") record drawings using the present-day metric system, including the specifications and sketches necessary to execute the Works prior to

commencement. All drawings generated are A0 and are submitted in electronic format (DWG) for the *Employer*'s records and ownership.

2) The *Contractor* submits comprehensive construction method statements for Acceptance prior to commencement of Works. As a minimum, the *Contractor* provides method statements for the handling, lifting, installation, placing and storage of sheets, including the method of dismantling and installation within the Machine Hall work areas under this Contract. In order to develop suitable method statements, the *Contractor* has had prior discussions and planning with Power Station management regarding the appropriateness of activities, taking into account safety, access windows, and weather conditions.

3) The *Contractor* provides risk assessments and fall protection plans for Acceptance, together with all required safety data.

4) The *Contractor* includes the mechanisms and controls to prevent objects from falling, including exclusion zones and protection measures.

5) Quality Control Plans (QCP/ITPs) and check sheets.

6) A bar chart programme (PDF acceptable) detailing all scope activities, including construction and installation.

7) Material Data Sheets, sketches and drawings.

8) Warranty and guarantee certificates (draft commitments where final certificates are only issued at handover, unless otherwise required).

9) A copy of the manufacturer's updated ISO certificate confirming that the product is manufactured to the necessary standard.

3.8.2 Post-implementation documentation

The *Contractor* supplies the *Employer* with the following as part of the handover pack:

1) Signed off Quality Control Plan and check sheets.

2) Maintenance manuals detailing installation, care and maintenance procedures where required.

3) Maintenance plan/maintenance philosophy.

4) Supplier certification, warranties and guarantee certificates.

5) Drawings/sketches and specifications.

6) Provision of as-built drawings, operating manuals and maintenance schedules to support ongoing upkeep and management of the new roofing and waterproofing systems.

7) Handover documentation to ensure all stakeholders are informed and satisfied with the completed Works.

3.8.3 Information to be included as As-built drawings, and/or operating manuals and/or maintenance schedules

1) The *Contractor* supplies, where required and after Acceptance by the *Supervisor*/*Project Manager* (as applicable), two (2) bound sets of operating instructions, maintenance manuals, data books and/or updated as-built drawings, which include, as a minimum:
   a) *Contractor* and Supplier details (name, address, email address, telephone numbers);
   b) *Contractor* emergency (after-hours) contact details;
   c) Sub*Contractor*/Supplier documentation relevant to the Works;
   d) test certificates;
   e) certificates of compliance/conformity (where applicable);
   f) guarantees and warranties.

2) The *Contractor* marks up one full set of the accepted drawings applicable to the Works (including the accepted “as-is” record drawings and/or accepted installation/shop drawings) with all relevant as-built changes and information and submits the marked-up set to the Supervisor for Acceptance at least thirty (30) days before the planned notification of Completion.

3) All documentation is supplied in the English language.

4) The Works will not be regarded as complete for handover purposes, and Completion will not be certified, until the above documentation has been supplied complete and in accordance with this Works Information.

5) The time allowed for review and Acceptance of drawings and documentation is as stated in Section 3.1.7.1 (Time required for Acceptance of reports, drawings and calculations). Where a submission is Not Accepted, the *Contractor* revises and resubmits in accordance with the same procedure, with each revision clearly identified by revision number, date and description in the revision block and transmittal.

4. Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

1) The *Contractor* ensures that all persons employed on the Site (including Subcontractors and Suppliers) are:
   a) legally entitled to work in the Republic of South Africa.
   b) in possession of all legally required permits/authorisations (including work permits/visas where applicable); and
   c) able to provide documentary proof of such entitlement and authorisations upon request by the *Project Manager*/Supervisor and/or site access control.

2) Where foreign nationals are proposed, the *Contractor*:
   a) provides the *Project Manager* with the proposed personnel list and supporting documentation before mobilisation; and
   b) acknowledges that the *Employer* retains the right to refuse Site access to any person who does not satisfy the *Employer*'s security, access control, statutory or operational requirements.

3) The *Contractor* ensures that all persons:
   a) have received appropriate training and qualifications relevant to their tasks (excluding health and safety training, which is addressed elsewhere);
   b) hold any required competency certifications for the activities they will perform (e.g., working at heights, lifting/rigging operations, scaffolding erection/inspection, MEWP operation, electrical work where applicable); and
   c) They are competent and medically fit for their assigned duties, where this is a site requirement.

4) No person may commence work on the Site unless they have:
   a) successfully completed the *Employer*'s site-specific induction; and
   b) Complied with the Site access prerequisites stated in Section 2.4 (including any documentation required for access control).

5) The *Contractor* maintains a site-specific labour register (including names, ID/passport numbers, *Employer* company, role/trade, and induction date) and makes it available to the *Project Manager* upon request.

4.1.2 BBBEE and preferencing scheme

1) The *Contractor* complies with and fulfils the *Contractor*'s obligations in respect of the Broad-Based Black Economic Empowerment (as per clause Z3 of ECC3).

2) The *Contractor* and his Subcontractors provide valid B-BBEE certificates to the *Project Manager* when updates are required.

4.2 Subcontracting

4.2.1 Preferred subcontracts

None

4.2.2 Subcontract documentation and assessment of subcontract tenders

1) The *Contractor* prepares subcontract documentation in a manner consistent with:
   a. The main Contract and this Works Information.
   b. The *Employer*'s standards and expectations regarding quality, safety, compliance, and reporting.

2) The use of the NEC family of contracts (NEC3 ECS or NEC3 SC) for subcontracting is strongly recommended. If the *Contractor* proposes to use other subcontract forms, the *Project Manager* must approve them in writing prior to issuing subcontract documentation.

3) Subcontract tenders must be:
   a. Issued following a process that ensures transparency and fairness.
   b. Assessed by the *Contractor* in consultation with the *Project Manager,* where practical (through submission of a joint assessment report for major subcontract packages exceeding R500,000 or as otherwise instructed).
   c. Awarded on the basis of:
      i. Technical compliance.
      ii. B-BBEE requirements.
      iii. Cost effectiveness.
      iv. Proven ability to meet the required delivery schedule.

4.2.3 Limitations on subcontracting

The following limitations apply:

1) The *Contractor* must not subcontract more than 50% of the total value of the Contract without prior written Acceptance from the *Project Manager*.

2) The *Contractor* ensures that the following specialist activities are undertaken only by suitably qualified and competent specialist subcontractor/service providers (where applicable), and that the proposed parties are acceptable to the *Project Manager*/*Supervisor*:
   a. installation of proprietary roof and side-sheeting systems where the manufacturer requires installation by an approved/authorised installer to maintain system warranties;
   b. scaffolding erection, modification and inspection (where scaffolding is used), performed and inspected by competent persons in accordance with applicable legislation/standards;
   c. specialised lifting/rigging operations (including craneage where required), performed by competent and certified operators/riggers;
   d. high-risk work at height systems (including lifelines/anchors where temporary systems are required), installed/inspected by competent persons; and

e. coating/corrosion protection works where specialist surface preparation or coating system application is required by the *Employer*'s corrosion protection requirements.
f. The *Contractor* remains fully responsible for the performance of all subcontracted Works and for the coordination, quality and safety of Subcontractors under the Contract.

4.2.4 Attendance on subcontractors

1) The *Contractor* provides all necessary attendance and support to ensure that Subcontractors can perform their work safely and effectively on Site, including, as a minimum:
   a. arranging site access, inductions and any permits-to-work required for the Subcontractors' activities;
   b. coordinating work areas, sequencing and working interfaces to avoid clashes and unsafe conditions;
   c. providing temporary facilities and laydown/storage arrangements where these are required and have been agreed with the *Project Manager*;
   d. managing and coordinating interfaces between Subcontractors, the *Contractor*'s own resources, and the *Employer*/Other *Contractor*s on Site; and
   e. ensuring Subcontractors comply with the *Employer*'s SHEQ requirements, site rules, and all applicable Contract requirements relevant to their scope.

2) The *Contractor* remains responsible for the performance, quality, safety and supervision of all Subcontractors and for the integration of subcontracted work into the Works.

4.3 Plant and Materials

4.3.1 Quality

1) The *Contractor* provides all labour, tools, vehicles, temporary works (including scaffolding/hoarding), consumables, Equipment, protection measures and cleaning materials necessary to Provide the Works.

2) The *Contractor* supplies/procures all Plant and Materials and provides for fabrication/manufacture (where applicable), handling, storage, testing, delivery, off-loading, installation, removal of debris and final finishing in every detail required to complete the Works.

3) The *Contractor* complies with the *Employer*'s site permit-to-work and access control requirements at all times (refer to Section 2.4). No unauthorised person enters prohibited or restricted areas. The *Contractor*'s personnel remain within the agreed Working Areas and comply with all site rules and restrictions.

4) The *Contractor* keeps daily site diaries/logs, signed by the *Contractor*'s authorised representative and made available to the *Supervisor* upon request (and signed/verified by the *Supervisor* where required). As a minimum, the diary records:

a) manpower and Equipment used;
b) weather conditions (where relevant to roof/cladding work);
c) unique occurrences, incidents or accidents;
d) delays and reasons;
e) industrial relations irregularities;
f) work activities performed and planned; and
g) on-site inspections and tests, including, where applicable, dry film thickness (DFT) testing and any other
h) coating/system verification tests required by the Works.

5) The *Contractor* ensures that its Equipment and operations do not impair station operations, access routes, emergency routes or safety systems. The *Contractor* provides suitable temporary/expendable materials for the storage and protection of Materials and Works.

6) The *Contractor* safeguards and secures all items in its custody and control until Completion and handover of the Works, including protection from damage, deformation, contamination, moisture and corrosion.

7) The *Contractor* does not modify adjacent plant, equipment or structures without prior written instruction/Acceptance by the *Project Manager*. “Modification” includes (but is not limited to) welding, drilling, cutting, removal, or imposing loads on adjacent structures/services beyond what is required to Provide the Works and described in the accepted method statements/shop drawings.

8) Proof of compliance with material specifications and workmanship requirements is required. The *Contractor* submits, where applicable, material data sheets, certificates of compliance/conformance, batch/heat certificates, product literature, and samples for Acceptance prior to procurement/installation. This requirement applies equally to Subcontractor and Suppliers.

9) Where the *Project Manager* instructs, the *Contractor* provides delivery documentation and proof of purchase/payment to support the valuation and auditability of materials delivered to the Site. Transfer of title/ownership to Plant and Materials occurs strictly in accordance with the Conditions of Contract (no additional title mechanism is created by this Works Information).

10) Where corrosion protection/coating works form part of the Works (including gutters/downpipes and any required steelwork repairs), the *Contractor* ensures the coating system meets the quality requirements of Eskom Standard 240-106365693 (or the applicable *Employer* corrosion protection requirements stated elsewhere in the Works Information), including inspection and test records.

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

1) No Plant, Materials, equipment or systems are provided free issue by the *Employer* unless expressly stated elsewhere in the Contract Data or this Works Information. The *Contractor* provides all Plant and Materials necessary to Provide the Works.

4.3.3 *Contractor*'s procurement of Plant and Materials

1) The *Contractor* procures Plant and Materials such that all required warranties/guarantees for key items and systems:
   a) are issued in favour of the *Employer* where required by the Contract and this Works Information;
   b) remain valid for not less than the periods required by this Works Information and/or the manufacturer's published requirements (whichever is more onerous, where applicable); and
   c) are capable of being ceded/assigned to the *Employer* on Completion (or are issued directly to the *Employer*).

2) The *Contractor* submits a warranty schedule to the *Project Manager* not later than one (1) month before notification of Completion. The schedule states as a minimum:
   a) item/system covered;
   b) manufacturer/supplier;
   c) warranty type and duration;
   d) conditions/maintenance requirements to keep the warranty valid; and
   e) confirmation of cession/assignment to the *Employer* (where applicable).

3) Where any warranty is conditional upon installation by an approved installer, specified fixings/sealants/coatings, inspections or sign-off, the *Contractor* ensures those conditions are complied with and provides the supporting evidence as part of the handover pack.

4.3.4 Spares and consumables

None

4.4 Tests and inspections before delivery

1) The *Contractor* prepares and submits a Testing and Inspection Plan/Programme (as part of the accepted QCP/ITP) for the *Project Manager*/*Supervisor's* Acceptance prior to performing any required inspections or tests.

2) The *Contractor* gives the *Project Manager*/*Supervisor* timeous written notice of all tests and inspections that are identified as witness or hold points in the accepted QCP/ITP, including the date, time, location and scope of the activity. The *Contractor* allows for *Employer* witnessing and does not proceed beyond any hold point without written release.

3) All inspections and tests are carried out in accordance with:
   a) the accepted QCP/ITP and method statements;
   b) the relevant manufacturer requirements for the proprietary roof/cladding systems; and
   c) applicable National Standards and Eskom Standards.

4) As a minimum, where applicable to the Works and identified in the accepted QCP/ITP, the *Contractor* performs and records the following:

a) inspection of delivered materials and components for compliance (profile, thickness, coating, colour, fasteners, accessories);
b) verification of installation quality and workmanship (fixings, clips, laps, terminations, flashings/cappings, closures, penetrations, gutters interfaces);
c) corrosion protection/coating inspections and testing where coatings are applied (including surface preparation verification and DFT testing where applicable); and
d) watertightness verification of completed areas, including a controlled flood/penetration test or other accepted watertightness test method where specified/required by the QCP/ITP and practical for the work area.

5) The *Contractor* submits all test procedures and inspection check sheets (including watertightness test procedure where applicable) to the *Project Manager*/Supervisor for Acceptance prior to execution of the relevant tests.

6) Test results, inspection records and non-conformance close-out evidence are included in the handover documentation pack in accordance with Section 3.8.

4.5 Marking Plant and Materials outside the Working Areas

All Equipment and materials must be marked as follows:

- Power Station Name, Contractor's Name.

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

1) The *Contractor* provides all Equipment (including temporary works) required to execute and complete the Works, including access systems, lifting equipment, protection systems, temporary facilities and temporary utilities.

2) The *Contractor* notifies the *Project Manager*/*Supervisor* in advance of the intended use of any specialised Equipment or temporary works that may affect:
a) the integrity of existing structures, roof members, plant or services;
b) safe access, emergency routes, or station operations;
c) working at height arrangements (including scaffolding, suspended scaffolding, MEWPs/cherry pickers,
d) catch platforms, debris netting, temporary weather protection); or
e) lifting/rigging operations and material handling arrangements.

3) Where the *Project Manager*/*Supervisor* instructs, or where bespoke/non-standard temporary works are proposed, the *Contractor* submits particulars for Acceptance prior to use, in accordance with Section 3.6.

4) The *Project Manager*/Supervisor may identify witness points or hold points related to the erection, inspection, certification, assembly or use of such Equipment/temporary works in the accepted QCP/ITP.

5) The *Contractor* remains fully responsible and liable for the design (where applicable), selection, suitability, compliance, safety, inspection and operation of all *Contractor*'s Equipment and temporary works. No review, witnessing or attendance by the *Employer* relieves the *Contractor* of these responsibilities.

6) The *Contractor* supplies, installs, maintains and removes all temporary construction facilities and utilities necessary to Provide the Works (including temporary lighting and power where required for safe execution), and ensures these do not impair plant operations, access routes or emergency routes.

7) Transportation and handling of equipment and materials is the *Contractor*'s responsibility. The *Contractor* ensures that delivery, storage and movement of materials and Equipment is controlled and does not damage existing works or create safety risks.

8) During execution, the *Contractor* provides progress photographs where instructed by the Supervisor, including photographs of work at height and completed roof/cladding areas for record purposes.

4.7 Cataloguing requirements by the *Contractor*

None.

4.8 Damage To Components Not Forming Part Of the works

1) The *Contractor* takes all reasonable steps to prevent damage to existing infrastructure, plant, services and equipment not forming part of the Works. The *Contractor* plans and sequences the Works to protect existing assets at all times, including during access, dismantling, lifting, handling, installation and reinstatement activities.

2) Any damage caused by the *Contractor*, its Subcontractors or Suppliers to items not forming part of the Works is made good by the *Contractor* at its own cost, to a standard consistent with the original condition and functionality, and in accordance with the *Employer*'s applicable standards and site requirements.

3) Prior to undertaking any repair/make-good work, the *Contractor* submits a repair method statement (and where relevant drawings, specifications and quality checks) to the *Project Manager*/*Supervisor* for Acceptance. The *Contractor* does not commence repair work until Acceptance has been obtained.

4) The *Contractor* does not remove, isolate, disconnect or relocate any existing plant, equipment or services not forming part of the Works unless:

a) it is expressly required by this Works Information, or the *Contractor* has been instructed/authorised in writing by the *Project Manager*; and
b) The *Contractor* has submitted an activity-specific method statement for Acceptance, which includes a list of items to be removed/isolated, protection/preservation measures, temporary support requirements (if any), and the reinstatement method.

5) Unless expressly stated otherwise in the Contract Data or instructed by the *Project Manager*, the cost and risk of the removal (of undamaged components), preservation, storage (including protection against damage/corrosion), and reinstatement to the original working condition rests with the *Contractor*.

6) Where drawings or reinstatement information are not available and are required to enable safe reinstatement, the *Contractor* prepares adequate drawings/sketches and reinstatement information to support reassembly and reinstatement. Where engineering certification is required due to the nature of the item or modification, such documentation is produced and signed by a suitably qualified professional (e.g., a Professional Engineer) as applicable.

7) The *Contractor* remains accountable for any adverse impacts on existing structures, integrity, alignment, performance or safety arising from removal, temporary support, reinstatement or any modifications associated with such activities.

5. Construction

1) For the purposes of this Contract, Temporary Works means all temporary works, facilities, infrastructure, services, installations and arrangements required by the *Contractor* to Provide the Works, including (as applicable) site establishment, offices/stores, laydown areas, access scaffolding/MEWPs, protection measures, laboratories or facilities for control/acceptance testing, and any temporary connections to existing water, sewer, electricity or other services.

2) The *Contractor* designs (where applicable), provides, operates, maintains and removes all Temporary Works required for the execution of the Works. All costs associated with Temporary Works, including installation, operation, utilities, compliance, maintenance, decommissioning and reinstatement, are for the *Contractor*'s account unless stated otherwise in the Contract Data.

3) The *Contractor* does not make or alter any connection to *Employer* services or infrastructure (water, sewer, electricity, etc.) without the prior Acceptance of the *Project Manager*/Supervisor (as applicable) and compliance with power station permit-to-work and access control requirements.

4) Before commencing any Temporary Works activity on the site, the *Contractor* prepares and submits relevant method statements (including risk assessments and protection measures) for the Acceptance of the Supervisor. The *Contractor* does not proceed until Acceptance is obtained.

5) On completion of the Works (or earlier when no longer required), the *Contractor* decommissions and removes all Temporary Works, disposes of all temporary materials and waste, and reinstates the affected areas to their original condition (or better), including making good any damage caused by Temporary Works activities. Reinstatement is subject to the Acceptance of the *Project Manager*/Supervisor.

5.1 Temporary works, Site services & construction constraints

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

1) Temporary Works for this contract are Works*,* infrastructure*,* and/or establishments that the *Contractor* is required to provide. Temporary Works include, inter alia, facilities, laboratories for control and acceptance testing, and connections to existing water, sewer, and electrical systems, etc.

2) Temporary Works will be adequately decommissioned, and the area will be made good upon completion of the Works, upon the *Project Manager*'s acceptance.

3) Method statements must be prepared before the commencement of any temporary Work*s* for the *Project Manager*'s acceptance.

4) Access to the power station is controlled, and site induction is completed before work is allowed to start. It is the *Contractor*'s responsibility to ensure that all employees have attended the site Induction and are fit for duty.

5) Before Works starts, a daily site meeting is held between the *Contractor* and *the Project Manager (the Employer)*, where details of the Works are discussed and clarified.

6) The *Contractor* will be informed of access procedures through site regulations, and procedures may change depending on the prevailing security situation.

7) The *Contractor* complies with all site regulations and instructions.

8) The onus is on the *Contractor* to ensure their familiarity with the *Employer*'s Site regulations and inspections.

9) The *Contractor*'s Site Supervisor is on-site for the entire duration of the Work*s*.

10) The *Contractor* must adhere to all security regulations in force during the contract period.

11) Any Work*s* will not commence without the Acceptance of the SHE files by the *Employer*'s safety representative

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

1) The *Project Manager* will define access routes and Working areas.

2) The *Contractor* must not block or restrict access to operational areas without prior Acceptance.

3) The *Contractor* provides **barricades, warning signage**, and **safe walkways** where required.

4) Temporary road closures or restricted areas must be coordinated with and accepted by the *Project Manager*

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

1) Normal Working hours:
   a. **Monday to Thursday, 07h30 to 16h30**, and
   b. Friday **07h30 to 12h30**.

2) Working outside regular hours, on weekends, or on public holidays requires prior written Acceptance from the *Project Manager*. The *Contractor* notifies the *Employer*s 72 hours in advance of any overtime request.

3) The *Contractor* maintains an up-to-date **Site attendance register** for all *Contractor* and Subcontractor personnel. The register must be available to the *Project Manager* or Supervisor on request.

5.1.4 Health and safety facilities on Site

Requirements for Health and Safety facilities are addressed in **Section 2.4.**

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

1) Requirements are addressed in Section 2.5.

2) The *Contractor* notifies the *Project Manager* immediately upon discovery of any object of historical or cultural interest, Title to materials from demolition and excavation.

3) No significant demolition or excavation is foreseen for this project.

4) Title to any such materials must remain with the *Employer* unless otherwise agreed in writing.

5.1.6 Title to materials from demolition and excavation

1) The *Contractor* is responsible for the lawful handling, segregation, storage, removal and disposal of all waste generated by the Works in an environmentally responsible manner, in accordance with applicable legislation and Eskom Waste Management Standard 32-245 (and any site environmental requirements). Waste includes (but is not limited to) general waste, construction rubble, contaminated material, packaging, and any hazardous waste.

2) Hazardous waste (including contaminated rubble/materials where applicable) is identified, handled, transported and disposed of only at appropriately licensed/registered facilities, using compliant transporters and documentation as required by law and Eskom standards.

3) Before any off-site disposal takes place, the *Contractor* submits to the *Project Manager* the proposed disposal facility details (name, location, licence/registration details, waste classes accepted) and obtains the *Project Manager*'s Acceptance of the disposal arrangement. The *Contractor* notifies the *Project Manager* of any change in the disposal facility prior to use.

4) The *Contractor* maintains full records of waste removed from the Site, including disposal slips/weighbridge tickets, waste manifests (where applicable), and delivery notes. Copies are submitted to the *Project Manager* at the intervals stated in the accepted QCP/Environmental Method Statement, and in any event prior to Completion.

5) All materials, scrap, cables, removed components and any other items arising from demolition/removal activities remain the property of the *Employer*, unless the *Project Manager* specifically identifies items as waste to be disposed of by the *Contractor*. The *Contractor* has no title to any such materials and may not remove them from the Site for its own use or benefit.

6) Scrap metal, cables and salvageable items:
   a) Where the *Project Manager* identifies items for salvage, the *Contractor* safely removes, preserves and stores such items at the designated on-site location identified by the *Project Manager*.
   b) The *Employer* provides the *Contractor* with the list of salvageable items (where known) before commencement of the relevant Works; however, the *Contractor* must also notify the *Project Manager* of any potentially salvageable items encountered during execution before treating them as waste.
   c) Scrap metal and cables are segregated and stored securely as directed, and are not disposed of unless instructed in writing by the *Project Manager*.

5.1.7 Cooperating with and obtaining acceptance of Others

1) The *Contractor* cooperates with the *Employer*'s Operations and Maintenance personnel, SHEQ representatives, security, and any other parties or *Contractor*s working on or visiting the Site as identified by the *Project Manager*.

2) The *Contractor* plans and sequences the Works to accommodate reasonable operational constraints and interfaces, including permits, access control, isolation requirements (if any), and site rules.

3) The *Contractor* liaises with relevant statutory authorities where required for legal compliance (e.g., waste disposal, traffic control where applicable) and provides evidence of such compliance to the *Project Manager* upon request.

4) Where the Works interface with activities or services provided by Others, the *Contractor*:
   a) identifies the required interfaces and constraints in method statements and the programme; and
   b) Obtain any required Acceptance from the *Project Manager*/Supervisor before proceeding with activities that depend on Others.

5.1.8 Publicity and progress photographs

1) No public statements, media releases, or advertising regarding the project may be made without the *Employer*'s prior written Acceptance.

2) The *Contractor* must submit **monthly progress photographs** to the *Project Manager*.

5.1.9 *Contractor*'s Equipment

1) The *Contractor* maintains an up-to-date Equipment Register of all *Contractor*'s Equipment brought onto Site (owned and hired), including, as a minimum: description, unique identification/serial number where applicable, ownership status (owned/hired), date in/date out, and the work area where used.

2) The Equipment Register is made available to the *Project Manager*/Supervisor and site security upon request and is updated whenever equipment is brought onto or removed from the site in accordance with station access control procedures.

3) All scaffolding, access platforms, MEWPs/cherry pickers, lifting equipment, rigging gear and cranes used on the Site comply with all applicable statutory requirements, are operated/inspected by competent persons, and are removed from the Working Areas when no longer required.

4) The *Contractor* implements noise and dust control measures where required by legislation, site rules and good practice to prevent nuisance and to protect station operations and personnel.

5) The *Contractor* complies with the safety and site access procedures stated in Section 2.4, and the requirements for the *Contractor*'s Equipment and temporary works stated in Section 4.6.

5.1.10 *Equipment* provided by the *Employer*

No *Employer* equipment is provided for the *Contractor*'s use under this Contract.

5.1.11 *Site* services and facilities

1) All services and facilities not expressly stated in this Works Information as being provided by the *Employer* are provided by the *Contractor* at no additional cost to the *Employer*. The *Contractor* allows for all temporary services, connections, distribution, protection, consumables and disconnections required to Provide the Works.

2) Where practicable and subject to site availability, the *Employer* makes the following available at designated points for the *Contractor*'s temporary use:
   a) Electrical power (typically single-phase 220V) at designated points. Any connection, use and isolation is subject to compliance with station procedures, permits and the Supervisor's requirements.
   b) Water at designated points for construction use.
   c) General waste bins are at designated points for normal domestic/general waste only (not construction rubble).
   d) Ablution facilities may be made available subject to station rules and capacity constraints.
   e) Telecommunications/data: no dedicated telecommunications service is provided; the *Contractor* makes its own arrangements.

3) The *Contractor*:
   a) pre-arranges all electrical supply points to be used with the *Employer*/Supervisor and uses only the points designated by the *Employer*;
   b) provides all temporary distribution equipment (e.g., extension leads, distribution boards, lighting, protection devices) and ensures the equipment is compliant, safe and suitable for site use; and
   c) where 3-phase power is required, requests this timeously and provides all equipment necessary to utilise the supply safely.

4) The *Contractor*:
   a) uses only the water points designated by the *Employer*;
   b) provides all temporary hoses, fittings and containment measures; and
   c) ensures no damage, leaks or uncontrolled discharge occurs as a result of the *Contractor*'s use.

5) The *Contractor* is responsible for the removal and lawful disposal of all construction waste (including rubble, removed sheeting/insulation, packaging and off-cuts) and any hazardous waste arising from the Works, in accordance with Section 5.1.6 and applicable legal requirements. General waste bins provided by the *Employer* are not used for construction rubble or hazardous waste.

6) A designated spoil/laydown area will be indicated by the *Employer*. The *Contractor* stores removed materials, scrap and salvage only in the designated area(s) and maintains good housekeeping. No sheeting, scrap metal, cables or other materials removed from the Works areas may be removed from the Site except in accordance with Section 5.1.6 and station access control/security procedures

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

1) The *Contractor* inspects adjacent areas, existing facilities and premises that may be affected by the Works and implements protection measures to prevent damage, contamination, water ingress, dust ingress or disruption to station operations.

2) Where the *Contractor*'s Works interface with the work of Others, the *Contractor* inspects the relevant interface areas and the work of Others (to the extent visible/available) and notifies the *Project Manager*/Supervisor of any defects, constraints or discrepancies which may affect the Works before proceeding with the affected activities.

3) The *Contractor* takes extreme care to prevent damage to existing services and equipment in the vicinity of the Works, including (as applicable) water lines, electrical cables, motors, panels and controls. The *Contractor* identifies service risks in method statements and risk assessments and provides appropriate protection, support and marking.

4) Before commencing work in any new area, the *Contractor* liaises with the Supervisor and confirms access requirements, permits, isolations (where required), and the protection measures to be implemented.

5) The *Contractor* briefs the Supervisor daily on the intended work areas and requests any joint inspections required for that day's activities. Any deviation from the planned/programmed work areas is notified to the Supervisor timeously to allow any required inspection, permit changes or additional protection measures without delaying the work.

6) Any review, input or attendance by the Supervisor or *Employer*'s representative does not reduce or transfer the *Contractor*'s responsibility for protecting existing services, assets and the work of

Others. The *Contractor* remains fully responsible for the adequacy of protection measures and for any damage caused by the *Contractor*, its Sub*Contractor*s or Suppliers.

5.1.13 Survey control and setting out of the *works*

1) The *Employer* provides available reference points and benchmarks where required and where practicable.

2) The *Contractor* is responsible for all setting out, surveying and dimensional control necessary to Provide the Works, including verification of levels, lines, interfaces and tolerances to ensure correct fitment and alignment of the new cladding and roof systems.

3) The *Contractor* complies with the *Employer*'s quality inspection and verification requirements (including the accepted QCP/ITP/QIP where applicable) and provides all survey/measurement records required to demonstrate compliance with the Works Information.

4) Prior to procurement/fabrication and installation, the *Contractor* carries out the necessary surveys and measurements of the existing structure and interfaces to confirm:

   a) the correct dimensions for the replacement roof and cladding sheeting;
   b) the condition and geometry of the existing structural members to which new sheeting will be fixed; and
   c) The dimensions and details of items requiring comparative replacement (including roof ventilators and associated flashings), where applicable.

5) Any discrepancies, constraints or material deviations identified during setting out/surveys are notified to the Supervisor/*Project Manager* timeously (via the contract communications process) before proceeding with the affected work.

5.1.14 Excavations and associated water control

1) No excavation is foreseen.

2) Any excavations required must be adequately drained and protected against water ingress.

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

1) The *Employer* may provide drawings and/or information indicating known underground and other existing services. The *Contractor* does not rely on the completeness or accuracy of such information and remains responsible for verifying actual service locations and depths before starting any excavation, drilling, fixing or breaking-out works.

2) Before any ground disturbance or works which may affect existing services, the *Contractor*:
   a) prepares and implements a service detection/locating plan and method statement (including a permit-to-dig/permit-to-work approach where required by site procedures);

b) uses appropriate detection methods and equipment (and trial holes where necessary) to confirm actual service locations; and
c) marks, protects and maintains identification of all located services for the duration of the Works in the affected area.

3) The *Contractor* protects all services, trenches and covers during the Works, including
   a) preventing loading/damage from plant, vehicles, scaffolding, deliveries and material storage;
   b) keeping covers accessible and not obstructed; and
   c) reinstating any disturbed trench/cable route protection and covers to their original condition and functionality.

4) If the *Contractor* discovers services which are not shown, or services that differ materially from what is indicated/expected, the *Contractor* stops work in the affected area, makes the area safe, protects the service, and notifies the *Project Manager*/Supervisor timeously before proceeding.

5) If any service is damaged or suspected to be damaged, the *Contractor* immediately:
   a) stops work and makes the area safe;
   b) notifies the *Project Manager*/Supervisor and follows station emergency/isolation procedures where applicable; and
   c) undertakes reinstatement/repair in accordance with the agreed method and site requirements. Any damage caused by the *Contractor*, its Sub*Contractor*s or Suppliers is repaired/made good by the *Contractor* at its own cost.

5.1.16 Control of noise, dust, water and waste

1) The *Contractor* implements effective measures to prevent or minimise nuisance and environmental impact arising from the Works, including control of noise, dust, emissions, water runoff and waste, in accordance with applicable legislation, station rules, the *Employer*'s policies, and Section 2.5 of this Works Information.

2) As a minimum, the *Contractor*:
   a) limits noise-generating activities where practicable and maintains all plant/equipment in good working order (including silencers/mufflers where fitted);
   b) suppresses and controls dust during cutting, drilling, grinding, demolition and material handling (including use of extraction, wet methods where appropriate, and containment);
   c) prevents uncontrolled water runoff, contamination and pollution (including bunding/containment of materials, protection of stormwater inlets, and immediate clean-up of spills);
   d) segregates, stores and removes waste in a controlled manner and disposes of waste lawfully (refer to Section 5.1.6); and
   e) maintains good housekeeping in all work areas, access routes, laydown and spoil areas.

3) Any environmental incident, spill, uncontrolled discharge, excessive dust/noise complaint, or suspected non-compliance is reported to the *Project Manager*/Supervisor immediately, and corrective action is implemented without delay.

5.1.17 Sequences of construction or installation

1) The *Contractor*'s programme clearly shows the sequence, logic links and interfaces for all activities required to Provide the Works, including the activities of Sub*Contractor*s and Suppliers where used. The programme allows for access constraints, permits, inspections, witness/hold points, and the review/acceptance periods stated in the Contract and this Works Information.

2) As a minimum, the programme includes (where applicable) the following key activities and deliverables:

a) **Pre-construction / Pre-implementation submissions and approvals**

- Site induction, access arrangements and permit-to-work planning.
- Final SHE File and all statutory appointments (as required).
- Site establishment and temporary works/access/protection method statements (including protection of critical plant, debris/water ingress control and exclusion zones).
- Project Quality Plan / QCP / ITP and inspection check sheets.
- Waste management arrangements and disposal facility approvals (where applicable).
- Survey/measurement of the existing structure and interfaces required for the Works.
- Submission of baseline/as-built survey information and the preparation and submission of shop/installation drawings required for implementation, including details for: roof and wall cladding installation, flashings/cappings, ventilators, gutters interfaces, access hatches/removable panels (where applicable), and any required minor fabrication details.

b) **Procurement and mobilisation**

- Procurement/manufacture of sheeting, clips/fasteners, flashings/cappings, sealants, insulation, ventilators and accessories (including lead times).
- Delivery to Site, off-loading, storage and material verification/receiving inspections.

c) **Construction/installation**

- Site establishment and installation of temporary access, edge protection, scaffolding/MEWPs and protection systems.
- Controlled removal/demolition of existing roof and cladding components in planned sections, including removal of insulation where applicable and handling/storage of salvage/scrap as instructed.
- Inspection of purlins and trusses during strip-out; repair/replacement of damaged members as accepted.
- Installation of new roof sheeting and side cladding, including clips/fasteners, closures, terminations and sealing.
- Installation of ridge cappings, flashings and roof ventilators.

- Cleaning, preparation and repainting of gutters and downpipes (including rust removal) and verification of drainage performance.
- Ongoing inspections/testing in accordance with the accepted QCP/ITP and resolution/close-out of non-conformances.

d) **Testing/verification**

- Watertightness verification (e.g., controlled flood/rain penetration testing where applicable and practical) and completion of punch list/snags.

e) **Close-out**

- De-establishment and removal of temporary works; making good and reinstatement of affected areas.
- Submission of final handover pack: signed quality records, disposal records (where applicable), warranties/guarantees, maintenance philosophy, as-built drawings, and all required completion documentation (including SHE file close-out where applicable).

3) The *Contractor* allows in the programme for the **review/acceptance periods** stated in the Contract and this Works Information for method statements, quality plans and technical submissions, and does not plan work to proceed where Acceptance is required until the relevant Acceptance has been obtained.

5.1.18 Giving notice of work to be covered up

1) The *Contractor* gives the Supervisor not less than two (2) Working Days' notice before covering up any part of the Works which is required to be inspected, tested, measured or verified.

2) The notice:
   a) is submitted in writing in accordance with the Contract communications requirements;
   b) identifies the exact location, extent and nature of the work to be covered
   c) states the proposed date and time the work will be ready for inspection; and
   d) References the relevant QCP/ITP inspection point (where applicable).

3) The *Contractor* does not cover up the work until the Supervisor has had a reasonable opportunity to inspect it, and any required witness/hold point has been released in accordance with the accepted QCP/ITP.

5.1.19 Hook-ups to existing works

1) Any tie-ins/hook-ups to existing *Employer* infrastructure or services required to Provide the Works (including, where applicable, connections to existing electrical supply points, water points, and stormwater/gutter/downpipe interfaces) are:

a) carried out only after the *Contractor* has obtained the necessary prior Acceptance/approval and permits in accordance with station procedures (including any isolation requirements where applicable);
b) planned and coordinated with the *Employer* to avoid disruption to station operations and to maintain safe access; and
c) executed under controlled conditions with appropriate inspection, testing and verification as required by applicable standards, site rules, and the accepted QCP/ITP.

2) The *Contractor* does not modify, alter, drill into, cut into, or connect to any existing structures/services outside the defined Works without the *Project Manager*'s prior written instruction/Acceptance, and submits the relevant method statement for Acceptance where required.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

On or before the Completion Date, the *Contractor* shall have done everything required to Provide the Works. The *Project Manager* cannot certify Completion until all the work has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the works and Others from doing their *work*.

	Item of work	**To be completed by**
	As-built drawings of *works*.	Within 30 days after Completion
	Performance testing of the *works* in use as specified in paragraph 7.2.8 of this Works Information.	Date of Completion.

5.2.2 Use of the Works before Completion has been certified

1) The *Employer* may use or occupy any part of the Works before Completion has been certified. If the *Employer* does so, the *Employer* takes over that part of the Works unless the use is for a reason stated in this Works Information and the *Project Manager* confirms in writing that such use does not constitute Take Over.

2) The *Employer*'s continued operation and use of the Power Station, Machine Hall, access routes, and associated facilities during execution of the Works is expected and, on its own, does not constitute Take Over of any part of the Works. This includes, without limitation:
a) continued occupation and operation of plant and equipment beneath or adjacent to the roof/cladding works;
b) use of access roads, laydown routes, emergency routes and shared circulation areas by the *Employer* and other *Contractor*s; and
c) operational inspections and routine activities required to keep the station running safely.

3) Where the *Employer* requires temporary use of any newly installed portion of roof/cladding/associated elements prior to Completion (e.g., for operational necessity, inspections, weatherproofing verification, or to maintain station operation), such use:
   a) is coordinated with the *Contractor* so far as reasonably practicable (including timing, access, and safety controls);
   b) does not relieve the *Contractor* of responsibility to complete the Works, correct Defects, or comply with the Works Information; and
   c) does not constitute a partial Take Over unless confirmed in writing by the *Project Manager*.

4) The *Contractor* plans and executes the Works such that ongoing station operation is not impeded. In particular, the *Contractor* implements effective protection and control measures to prevent water ingress, dirt, dust and debris from contaminating areas below the Works, and to ensure that units and equipment are protected at all times during demolition and installation activities.

5) The *Contractor* maintains unrestricted access for the *Employer*, emergency services and other authorised road users at all times, except where temporary restrictions are approved through the permit-to-work / access control arrangements and are managed with suitable barricading, signage and traffic control. Any third-party claims, costs or losses arising from the *Contractor*'s failure to maintain safe access or from the *Contractor*'s acts/omissions remain the *Contractor*'s responsibility.

5.2.3 Materials, facilities and samples for tests and inspections

1) The *Contractor* provides and maintains, where required, suitable facilities and arrangements to enable sampling, inspection and testing of the Works and of Plant and Materials used in the Works. This includes safe access, lighting, protection from weather (where necessary), and any temporary measures required to allow proper inspection/testing.

2) The *Contractor* provides samples of Plant and Materials (including sheeting, fasteners/clips, sealants, coatings and accessories) where required by the Works Information or the accepted QCP/ITP, or when instructed by the Supervisor, for review/verification prior to incorporation into the Works.

3) The Supervisor carries out routine inspections of work in progress and finished work. The *Contractor*:
   a) allows safe access to the Working Areas for such inspections;
   b) provides reasonable assistance (including access equipment where required); and
   c) does not proceed past any witness/hold points identified in the accepted QCP/ITP without the required release/acceptance.

4) Inspections, sampling and testing activities are recorded, and the results are included in the quality records and handover documentation pack in accordance with the Works Information.

5.2.4 Commissioning

Commissioning of the *works* as per the relevant codes and standards will be the responsibility of the *Contractor* and executed as per the Commissioning Schedule developed by the *Contractor*, for acceptance by the *Supervisor*.

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

N/A

5.2.6 Take over procedures

1) Take Over of the Works (or any part of the Works) is in accordance with Core Clause 35 of the Conditions of Contract and occurs when the *Project Manager* issues a Take Over Certificate.

2) When the *Contractor* considers the Works (or a section) ready for Completion and Take Over, the *Contractor* notifies the *Project Manager* in writing and confirms that, as a minimum:
   a) all roof and cladding replacement work, flashings/cappings, ventilators, gutters/downpipes and sealing are complete in the relevant area(s);
   b) all required inspections, tests and verification activities have been completed (including watertightness/rain penetration testing where applicable and practical), and the results have been submitted;
   c) All defects which would prevent safe use, operation or weatherproof performance have been corrected;
   d) Working Areas are clean, safe, and free of debris and loose materials; temporary works not required for Defects correction have been removed; access routes are reinstated; and
   e) The *Contractor* has submitted the required handover documentation for the Works (as applicable), including:
      I. as-built drawings and mark-ups;
      II. warranties/guarantees and manufacturer/installer sign-offs (where required);
      III. signed quality records/QCP close-out and inspection check sheets;
      IV. waste disposal and housekeeping close-out records (where applicable); and
      V. Maintenance philosophy/care and maintenance information for the new roof and cladding systems.

3) The *Project Manager* arranges a Take Over inspection with the Supervisor and relevant *Employer* representatives (Operations/Maintenance/SHEQ as required). The inspection confirms readiness for Take Over and identifies any minor outstanding items which do not prevent Take Over. Such minor items are recorded and managed as Defects/close-out items in terms of the Contract.

4) The *Contractor* does not demobilise from the Site or remove key supervision resources required for close-out/Defects correction until authorised by the *Project Manager*, and remains responsible for the Works until Take Over occurs for the relevant part.

5) Take Over does not relieve the *Contractor* of its obligations regarding:
   a) correction of Defects during the defect correction period;
   b) completion of outstanding minor items recorded at Take Over (if any); and

c) warranty/guarantee obligations

5.2.7 Access given by the *Employer* for correction of Defects

1) After any part of the Works has been Taken Over, the *Project Manager* arranges for the *Employer* to allow the *Contractor* access to and use of that part of the Works as required to correct a Defect, subject to station operational constraints, access control and permit-to-work requirements.

2) Where access is required after Take Over, the *Contractor* submits a formal Access Request to the *Project Manager*, stating:
   a) the Defect to be corrected and the proposed corrective method;
   b) the specific locations/areas requiring access (including access routes, scaffolding/MEWP locations, roof access points);
   c) the estimated duration and working hours required;
   d) any temporary restrictions required (e.g., barricading, exclusion zones, temporary protection below); and
   e) any impact on station operations or shared access routes.

3) The *Project Manager* coordinates with the *Employer*'s Operations/Maintenance/SHEQ/Security representatives (as applicable) to schedule and control such access, including any required permits, isolations (if applicable) and safety arrangements.

4) The *Contractor* complies with all applicable site access and operational procedures, including:
   a) permit-to-work systems;
   b) access limitations in critical operational areas/times;
   c) additional safety controls required for the Defect work (barricading, signage, working-at-heights controls, drop-zone management, protection against debris and water ingress); and
   d) requirements for safe working practices in a live power station environment.

5) The *Contractor* plans and executes Defects correction to achieve minimum disruption to station operations and to protect existing plant and equipment at all times.

6) On completion of Defects correction, the *Contractor*:
   a) notifies the *Project Manager*/Supervisor;
   b) demonstrates that the Defect has been fully corrected; and
   c) carries out any re-inspection or verification testing required (e.g., watertightness confirmation where relevant) and submits the results for record/acceptance where applicable.

5.2.8 Performance tests after Completion

1) After Completion (or prior to Take Over, where required by the Supervisor), the *Contractor* carries out performance verification tests to demonstrate that the roof and cladding system is weathertight, correctly installed, and that roof drainage components operate effectively.

2) Performance tests include, as applicable (but are not limited to):

a) Watertightness verification/flood or rain penetration test to confirm no water ingress through roof sheeting joints, flashings, cappings, penetrations, ventilator interfaces and terminations, carried out in accordance with SANS 10400-K (2011) principles, manufacturer requirements, and the accepted QCP/ITP; and
b) verification that gutters and downpipes are clean, free-flowing and discharge correctly with no uncontrolled overflow or leakage at joints/interfaces.

3) The *Contractor* submits the proposed test method/procedure (including the test area, duration, water application method, acceptance criteria and inspection points) to the Supervisor for Acceptance before testing and gives notice of the test to allow witnessing.

4) If any water ingress/leakage is detected, the *Contractor* rectifies the Defect and repeats the relevant test(s) until compliance is achieved.

5.2.9 Operational maintenance after Completion

1) The *Contractor* provides the *Employer* with care, operation and maintenance information for the completed roof and wall cladding Works, to support ongoing upkeep and to preserve warranty/guarantee validity.

2) Where applicable, this information includes (as a minimum):
   a) manufacturer/installer maintenance recommendations for the installed sheeting, clips/fasteners, flashings/cappings, sealants and ventilators;
   b) recommended inspection frequencies and checklists (including after major wind/rain events);
   c) roof and gutter cleaning requirements and safe access considerations;
   d) guidance on minor maintenance activities (e.g., re-fixing/fastener checks where applicable, sealant touch-ups in accordance with manufacturer requirements); and
   e) warranty/guarantee terms, conditions, and reporting requirements for Defects.

3) The *Contractor* submits the maintenance information to the Supervisor for Acceptance as part of the handover documentation pack before Completion/Take Over in accordance with Section 3.8 and Section 2.14 (training and technology transfer), where applicable.

4) Provision or Acceptance of maintenance information does not relieve the *Contractor* of its obligations to correct Defects and meet the performance requirements of the Works.

6. Plant and Materials standards and workmanship

1) The *Contractor* ensures that all Plant, Materials and workmanship used in the Works comply with:
   a) the technical requirements, performance criteria and scope stated in this Works Information (including any appendices forming part of the Contract);
   b) the applicable SANS/SABS standards, Eskom standards, and manufacturer's requirements stated or implied by the Works; and
   c) any additional requirements stated elsewhere in this Works Information (including SHEQ, quality, testing, warranties and handover requirements).

2) The *Contractor* uses competent tradespeople and approved/competent installers (where required by manufacturers) and executes the Works in accordance with generally accepted good practice for roof and cladding replacement works, including work at height and live power station constraints.

3) Where a conflict or ambiguity arises between requirements contained in this Works Information and any referenced standard/manufacturer requirement, the more stringent requirement applies, subject to the *Project Manager*'s written confirmation/instruction where clarification is required. The *Contractor* notifies the *Project Manager* timeously upon identifying any such conflict.

6.1 Investigation, survey and Site clearance

1) No additional geotechnical or topographical investigations are required under this Contract beyond information already made available by the *Employer*. The *Contractor* remains responsible for verifying actual site conditions relevant to the Works.

2) Before commencing installation activities, the *Contractor* carries out a thorough site survey/verification of the existing Machine Hall roof and cladding areas, including interfaces and constraints, to confirm dimensions, access arrangements, protection requirements and any constraints affecting sequencing.

3) Site clearance is limited to activities necessary to enable the roof and cladding replacement Works, including (as applicable):
   a) clearing access routes, work areas, laydown areas and fixing zones;
   b) removal/relocation of redundant minor items that obstruct the Works (only where authorised through station procedures); and
   c) establishing temporary protection to prevent water ingress, dust/debris contamination and damage to plant and equipment below.

4) If the *Contractor* requires access to specific restricted areas or requires temporary restrictions to access routes, this is arranged through the *Project Manager*/Supervisor and in accordance with station access control and permit-to-work requirements, with notice given timeously to avoid delays.

5) Existing cladding and roof sheeting removed from the Works is managed in accordance with Section 5.1.6 and Section 5.1.11, including:
   a) stockpiling/placing in the designated area instructed by the *Employer*;

b) safeguarding any items identified for salvage by the *Project Manager*; and
c) disposal of waste (including hazardous waste where applicable) at an approved facility, with disposal records/certificates provided to the *Employer* for record.

6.2 Applicable standards, codes and statutory requirements

1) The Works (upgrades/replacement of the structural steel cladding and roof sheeting to the Machine Hall Surface Building at Gariep Power Station) are executed in accordance with the latest editions (including all amendments) of the applicable SANS standards and Eskom standards/procedures relevant to structural steelwork, cladding/sheeting, corrosion protection, waterproofing, fasteners and wind actions.

2) The *Contractor* is responsible for ensuring it is thoroughly familiar with, and complies with, all applicable standards and requirements before submitting its tender and throughout execution of the Works.

3) In addition to national statutory requirements, the *Employer*'s standards listed in this Works Information apply. Where a referenced standard has been superseded, the current/latest equivalent standard applies.

4) Publicly available standards (SANS / published codes) include, but are not limited to:

5) Publicly available standards (SANS / published codes) include, but are not limited to:
   a) SANS 1200 series – Standardised specifications for civil engineering construction
   b) SANS 1200H (Structural steelwork)
   c) SANS 1200HB – Cladding and sheeting
   d) SANS 1200HC – Corrosion protection of structural steelwork
   e) SANS 10400-K:2011 – Roofs (and relevant cladding/roofing manuals)
   f) SANS 1273:2011 – Fasteners for roof and wall coverings (sheeting)
   g) SANS 1237:1991 – Fasteners for roof and wall coverings (sheeting)
   h) SANS 10120-HB – Code of practice: cladding and sheeting
   i) SANS 0160:1989 – General procedure and loadings for design of buildings (where applicable / if referenced)
   j) SANS 10160-3:2019 – Basis of structural design and actions, Part 3: Wind actions
   k) SANS 683 – Roof paints
   l) SANS 10021 – Waterproofing of buildings
   m) SANS 10155 – Accuracy in buildings

6) International standards (where applicable) include, but are not limited to:
   a) BS EN ISO 1461:2022 – Hot dip galvanised coatings (specification and test methods)
   b) BS 10025-2:2004 (S275) – Hot rolled products of structural steel
   c) BS 4211 – Mild steel

7) Design manuals (where applicable and aligned to the selected system):
   a) GSR / IBR 2014 – Global Solutions Steel and Roofing design manuals (or equivalent manufacturer/system manuals accepted by the Supervisor).

8) Eskom standards, procedures and site rules (available on request / issued or made available for the Contract) include, but are not limited to:
   a) GGR 0992 / 36-681 – Generation Plant / Eskom Plant Safety Regulations
   b) GGS 0315 – Standard drawing practice
   c) GGS 0441 – Drawing record system
   d) GGG 0462 – Quality requirements for engineering and construction works
   e) QM 58 – Supplier Contract Quality Requirements Specification
   f) 240-62196227 – Eskom Life-Saving Rules
   g) 240-133087117 – Environmental Incident Management Procedure
   h) 240-106628253 – Welding requirements on Eskom plants (where applicable)
   i) 240-106365693 – External corrosion protection standard (coatings)
   j) 32-37 – Substance abuse procedure
   k) 32-95 – OHS incident management procedure
   l) 32-726 – Contract and *Contractor* OHS management
   m) 32-727 – SHEQ policy
   n) 32-418 – Working at heights procedure
   o) 32-520 – Risk assessment procedure
   p) 240-71432150 – Plant labelling and equipment description standard (where applicable)
   q) 167A/49; 167A/143; and related drawing/documentation standards and procedures for *Contractor* deliverables (where applicable)

9) Applicable statutory requirements (including, but not limited to):
   a) Occupational Health and Safety Act, No. 85 of 1993 and Regulations (including General Machinery Regulations where applicable)
   b) SANS 10400 (A, C, D, F as applicable to the Works and site operations)
   c) COIDA – Compensation for Occupational Injuries and Diseases Act (or equivalent)

10) Where any of the above standards/procedures are not publicly available, they are available on request and/or will be made available via the *Employer*'s document control process. Compliance remains the *Contractor*'s obligation.

6.2.1 Particular Specifications

6.2.1.1 Wall Cladding Profile

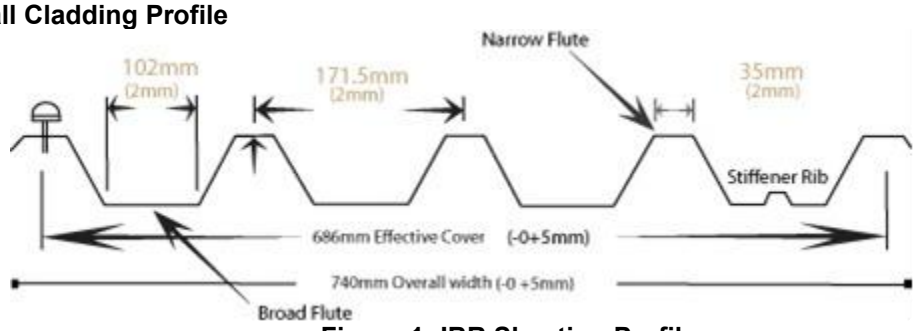


Figure 1: IBR Sheeting Profile

1) Profiled sheets comply with the quality requirements of the relevant South African National Standards (SANS) and the standards listed in Section 6.2 (as applicable to cladding and sheeting).

2) The wall cladding profile is IBR (Inverted Box Rib) 686, manufactured from 0.54 mm (AZ 200) Zinc Aluminium-coated steel (Al-Zn). The sheeting is prepainted/colour-coated and protected on both sides.

3) The profile comprises five trapezoidal ribs at 171.5 mm centres, providing a net cover width of 686 mm, with one stiffener rib in each pan. The rib height is 37 mm. (Refer to the profile detail included in this Works Information.) The *Contractor* provides the manufacturer's profile data sheet confirming these dimensions.

4) IBR sheeting is laid and fixed strictly in accordance with the manufacturer's written specification, including handling, cutting, side laps, end laps, sealants (if applicable), and fixing patterns.

5) The manufacturer is assessed and certified as complying with ISO 9001:2015 Quality Management System. A valid ISO certificate is submitted with the *Contractor*'s material submission.

6) The type of sheet and profile must allow for possible overloading due to hail and construction loads. The cladding and fixing system must withstand the severities of the environmental conditions without unacceptable deflection or loss of performance, and must comply with the manufacturer's span/load guidance and the applicable codes.

7) Fasteners and compatibility:
   a) Main fasteners are Bremick B8 self-drilling fasteners for metal, or approved equivalent.
   b) Fasteners: No. 12–24 x 2 mm self-drilling screw with 26 mm aluminium bonded washer.
   c) Side lap fasteners: 25 mm long, Topspeed screws for side lap stitching, with 19 mm diameter bonded washers.
   d) The *Contractor* ensures the correct fixings are used and that fasteners are compatible with the underlying structure and the sheeting/coating. The design life of the cladding must be equal to that of the fixings.

8) The *Contractor* provides a colour sample of the cladding prior to manufacturing/procurement for Acceptance by the Supervisor.

9) The cladding system complies with SANS 10237 (Roof and Cladding code of practice) and any other applicable SANS requirements referenced in this Works Information.

6.2.1.2 Fasteners and Washers

1) All fasteners and washers comply with SANS 1273.

2) Where a fastener type is not covered by SANS 1273, the supplier provides a written guarantee confirming that the fastener meets the general requirements of SANS 1273 and is fit for the intended application.

3) The fastener class selected ensures the life expectancy of the fasteners is at least similar to that of the cladding system under the site exposure conditions.

4) Fasteners, washers and sealants are suitable for the specific application and compatible with the sheeting and supporting structure in respect of:
   a) corrosion resistance (including galvanic compatibility),
   b) adhesion and sealing performance,
   c) long-term flexibility/elasticity,
   d) temperature breakdown/thermal effects, and
   e) the intended design life.

5) Fasteners and washers are resistant to deterioration resulting from ultraviolet (UV) exposure, thermal movement, and airborne agents, and must withstand these environmental conditions without loss of performance.

6) The *Contractor* submits manufacturer data sheets and certificates of compliance (or equivalent product compliance evidence) for the proposed fasteners, washers and sealants as part of the material submission, prior to procurement/installation.

6.2.1.3 Fixing Details and Support Spacing

6.2.1.3.1 Assembly of side cladding

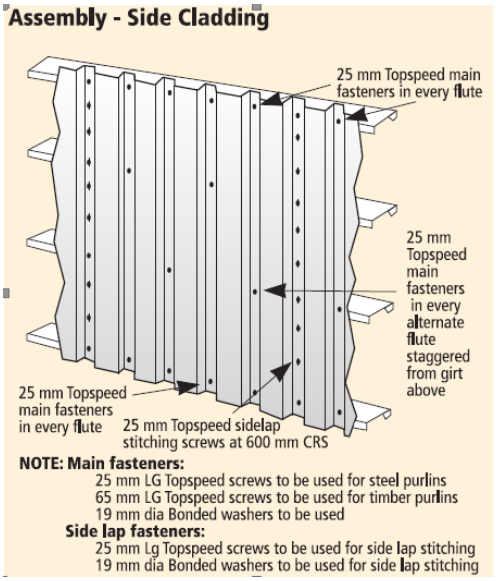


Figure 2: Fixing assembly and fasteners to be used

1) The side wall cladding assembly is fixed in accordance with Figure 2 and the relevant *Employer* drawings, including Drawing 0.38/0.1702.

2) The girt spacing is 1830 mm as indicated on Drawing 0.38/0.1702. The *Contractor* verifies the actual girt spacing on the site and checks the span/spacing requirements against the manufacturer's specifications prior to installation.

3) Before installation starts, the supporting structure is inspected to confirm that girts are correctly positioned, in true planes, and securely fixed.

4) Structural steelwork and any other materials that may be incompatible with the sheeting and could lead to deterioration are painted or otherwise isolated to prevent direct contact with the sheeting.

5) The *Contractor* checks, as a minimum, that:
   f) purlins and rails are at the spacing shown on the drawings;
   g) The overall dimensions of the roof, walls and gables correspond with the drawings;
   h) No protrusions (bolt heads, rivet heads, splice plates, etc.) occur on the face of the frame that would interfere with sheeting or compromise performance;
   i) all holes for fasteners are drilled, not punched; and
   j) Shavings and metal dust are removed before fixings and washers are positioned.

6) Side cladding is fixed using Bremick B8 self-drilling fasteners for metal, or approved equivalent: No. 12–24 x 2 mm self-drilling screw with 26 mm aluminium bonded washer (bonded washer aids load distribution).
   Washers and screw caps match the colour of the cladding.

7) The fastener system used must offer a 30-year warranty, supported by the supplier/manufacturer documentation.

6.2.1.3.2 Valley Fastening

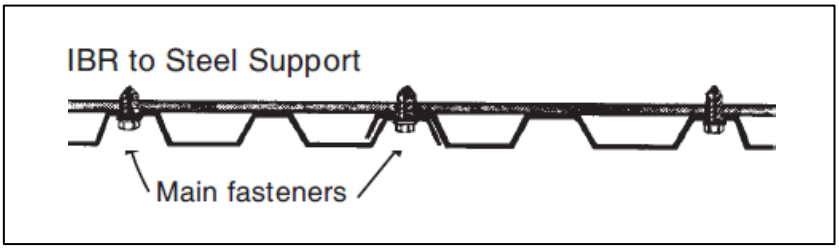


Figure 3: Typical valley fastener details with fastener over support at side lap

1) Pierced fastening may be used for fixing of sheets where appropriate, subject to compliance with the manufacturer's written recommendations and the applicable SANS requirements.

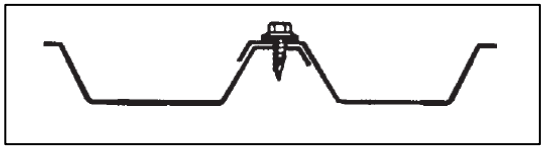
2) Pierced fastening through the valley between corrugations/flutes of IBR is recommended for wall cladding only and must not be used where the manufacturer prohibits it or where it would compromise watertightness or durability.

3) Where IBR wall cladding is valley-fastened, the *Contractor* provides side lap fasteners as follows (as a minimum):
   a) one side lap fastener in each lap at each support, and
   b) one side lap fastener at midspan between supports,
   c) in accordance with the fastener frequency and location depicted in the typical detail included in this Works Information and/or the manufacturer's specification (whichever is more stringent).

4) The *Contractor* submits the proposed valley fastening arrangement (including fastener type, spacing, and lap details) as part of the shop drawings/method statement for Acceptance prior to installation.

6.2.1.3.3 Side lap fastening

Figure 3: Typical side lap fastener details



1) Side lap fasteners along the wall are installed at a maximum spacing such that fasteners occur:
   a) at each girt (support), and
   b) at midspan between girts, or
   c) closer where required by the manufacturer's specification, wind loading requirements, or the approved shop drawings.

2) The IBR sheeting is laid, lapped, sealed (where applicable), and fastened strictly in accordance with the manufacturer's written specification, including all requirements for side lap engagement, stitching screws, washer types, and any sealants.

3) The *Contractor* verifies actual support spacing on the site and confirms the side lap fastening pattern remains compliant with the manufacturer's span and fixing requirements.

6.2.1.4 Waterproofing

1) Damp proofing and waterproofing comply with the specifications and requirements stated in the waterproofing table included in this Works Information. Waterproofing materials are applied in accordance with SANS 10021, and strictly in accordance with the waterproofing system manufacturer's written instructions.

2) The *Contractor* ensures that:
   a) Roofs are durable and do not allow penetration of rainwater or surface water into the interior.
   b) Roofs do not allow accumulation/ponding of water on the surface, and
   c) all relevant surfaces are checked for adequacy of slopes and detailing to ensure effective drainage and long-term watertightness.

3) The proposed waterproofing system must demonstrate the following characteristics for the intended exposure conditions:
   a) durable;
   b) bonds to the substrate;
   c) UV stable (or made UV stable through stated coatings/finishes);
   d) maintainable, and
   e) able to be warranted/guaranteed as required below.

4) Guarantee/warranty
   a) The *Contractor* provides an unconditional 5-year guarantee for waterproofing performance (materials and workmanship), in favour of the *Employer*.
   b) The guarantee is provided by both the *Contractor* and the system supplier/manufacturer, and is submitted in a comprehensive pro forma format with the tender.
   c) If additional coatings, inspections, re-coats, or maintenance interventions are required to maintain UV stability or performance, these requirements must be clearly stated in the tender, together with the proposed intervals, responsibilities, and any constraints/conditions.
   d) Any maintenance requirements linked to the 5-year guarantee are explicitly stated in the guarantee document.

5) Before application, the *Contractor* submits for Acceptance by the Supervisor (as applicable):
   a) product data sheets and system specifications;
   b) installation/application method statement (including surface preparation, primers, detailing at laps/edges/penetrations, curing, and protection during Works);
   c) Safety Data Sheets for all products, and
   d) the proposed guarantee/warranty documentation.

6) Acceptance of the waterproofing system, method statements, or submissions does not relieve the *Contractor* of responsibility for achieving the specified watertightness and durability outcomes.

6.2.1.5 Catladder Key specifications

1) Where catladders/fixed access ladders are required as part of the Works, they must provide safe, durable access to the roof and form part of a complete rooftop fall-protection/access route.

2) The design, supply and installation comply with:
   a) applicable South African legislation and site procedures for working at height; and
   b) recognised ladder/access standards. Where international standards are referenced (e.g., BS 4211 / BS 5395), they are applied only to the extent they are relevant and do not conflict with applicable South African requirements.

3) Fixed vertical catladders must be integrated with rooftop safety provisions, including (as applicable):
   a) guardrails/edge protection at the top landing;
   b) self-closing safety gates or equivalent fall prevention at roof access points; and
   c) designated walkways/routes to provide a safe access path across the roof.

4) The maximum load capacity is 150 kg (unless a higher rating is required by the applicable standard/design), and the *Contractor* provides manufacturer certification/design compliance evidence for the installed ladder system.

5) The *Contractor* must:
   a) carry out a task-specific risk assessment before ladder use/works at height activities;
   b) Inspect ladders/access equipment for corrosion, vandalism and damage before use and at appropriate intervals;
   c) demarcate and control the area below overhead work to prevent exposure to falling objects; and
   d) Implement working-at-height controls in accordance with the *Employer*'s procedures and the hierarchy of controls (including edge protection at the top of the ladder).

6) Before installation, the *Contractor* submits for Acceptance (as applicable):
   a) layout/details of ladder positions and interfaces;
   b) product data sheets and compliance certification; and
   c) The installation method statement is linked to fall protection and access arrangements.

6.2.1.6 Materials and Workmanship

1) Only new, undamaged, and fit-for-purpose materials are used in the Works.

2) Materials intended to be permanently incorporated into the Works are not used for temporary purposes on Site (including temporary access, protection, packing, propping, or other temporary applications).

3) All workmanship is executed:

a) in accordance with the relevant manufacturer's written recommendations and instructions;
b) in accordance with the applicable SANS and Eskom standards referenced in this Works Information; and
c) in a manner that achieves the specified performance outcomes (including durability and watertightness where applicable).

4) Work is made available for inspection and is subject to the Supervisor's inspections and acceptance processes as stated in this Works Information. Acceptance does not relieve the *Contractor* of responsibility for the quality and compliance of the Works.

6.2.1.7 Proprietary Products

1) For tender purposes, where items in the Bills of Quantities are described by trade names, catalogue references, or proprietary product identifiers, the tendered rates are deemed to be for the specific type and manufacturer stated.

2) After the contract award, the *Contractor* must not substitute any specified product or material without the prior written Acceptance of the *Project Manager*.

3) Any request to substitute must be submitted in writing and include, as a minimum:
   a) product data sheets and specifications;
   b) evidence of compliance with all stated SANS/Eskom requirements and performance criteria;
   c) compatibility statement (corrosion compatibility, adhesion, UV durability, thermal movement, etc.);
   d) warranty/guarantee equivalence (or better); and
   e) any programme/cost impacts (if applicable under the Contract).

4) Where waterproofing materials are specified, the following minimum requirements apply:
   - Polyethylene sheet for waterproofing of flat roofs: SANS 952, Type A
   - Bituminous roofing felt: SANS 92, Type 60
   - Chloroprene rubber sheet (for waterproofing): SANS 580, minimum 2.5 mm thick and 1200 mm wide

5) Acceptance of any substitution does not relieve the *Contractor* of responsibility for compliance with the Works Information, achievement of performance requirements, and correction of Defects.

6.3 Building works

1) During execution of the Works, the *Contractor* complies with all applicable building, construction, safety, quality and technical standards and specifications relevant to the scope, including all normative references contained within those standards.

2) The standards and specifications applicable to the Works are not necessarily bound into this Works Information. The *Contractor* obtains, at its own cost, all standards and reference documents required to execute the Works properly and in compliance with the Contract.

3) Where a referenced SANS standard has been superseded, the *Contractor* complies with the latest published revision (including amendments). Where a referenced standard consists of multiple parts, the *Contractor* complies with all applicable parts.

4) The list of standards stated in this Works Information is not exhaustive and does not relieve the *Contractor* of its obligation to comply with all applicable laws, regulations, codes, standards and manufacturer requirements applicable to the Works and the Site.

6.4 Civil engineering and structural works

1) During the construction of the Works, there are numerous standards and specifications to which the *Contractor* must adhere. The documents listed below (and as referenced/indicated on the drawings), including their normative references, are not bound into this Works Information. The *Contractor* obtains these documents at its own expense and complies with them in providing the Works.

2) Where any referenced SANS standard has been replaced or superseded, the *Contractor* complies with the latest edition in force at the Contract Date, including all applicable parts. Where a standard is composed of several parts, all relevant parts apply.

3) Where any referenced standard contains provisions for measurement and payment, those provisions do not apply (payment and assessment are governed by the NEC ECC and the Contract Data/Bill of Quantities). The technical/workmanship requirements remain applicable.

6.4.1 Structural Steelwork

1) The *Contractor* complies with the following codes/standards for structural steelwork (as applicable to the Works):
   - **SANS 2001-CS1 -** Structural steelwork
   - **SANS 1200H -** Structural steelwork *(technical/workmanship clauses only; measurement/payment clauses are not applicable under NEC)*
   - **AWS D1.1 -** Structural Welding Code – Steel *(or an equivalent welding code accepted by the Project Manager where applicable)*
   - **SANS 1921-3 -** Construction and management requirements for works contracts, Part 3: Structural steelwork
   - **SANS 50025-2 -** Hot rolled products of structural steels – Part 2: Technical delivery conditions for non-alloy structural steels
   - **SANS 1700 -** Fasteners
   - **SANS 10162 -** The structural use of steel

2) The table referenced below (where included in this Works Information) indicates particular requirements pertaining to SANS 2001-CS1 and must be read in conjunction with that code.

Clause	Specification
4.1	**Materials**

4.1.1	Add the following: All structural steelwork is required to be grade S355JR.
4.1.4.1	Electrodes for electric welding are required to be E7018.
4.1.5.1	Ordinary bolts to be grade 8.8 with class 8 nuts, as a minimum.
4.2	**Drawings**
4.2.4	Fabrication drawings (shop detailing)
4.2.4	The following clause is added: "Fabrication drawings are to be prepared by the *Contractor*. These are issued to the *Project Manager* for acceptance in the form of two paper prints and in "PDF" electronic format. The *Contractor* may not commence with fabrication until written acceptance from the *Project Manager* is received."
4.2.4.2	Attachments to facilitate erections may not remain as part of the permanent structure.
4.2.4.7	Connections to allow movements are as shown on the Drawings.
4.3	**Workmanship (General)**
4.3.6	Holing
4.3.6	The following clause is added: "Flame cutting of holes is not permitted."
4.6	**Workmanship – Erection**
4.6.5	On-site welding is not permitted
5.3	**Non-destructive testing of welds**
5.3.3	Fillet welds are required to undergo magnetic particle inspection (20% of welds)
5.3.4	All butt welds and full penetration welds are required to undergo ultrasonic non-destructive testing (100% of welds).
Variations	
Cl 5.2	Add the following: Properly documented evidence of the previous qualification of welders is acceptable.
Additional Clauses	
1	All materials are to be new and as specified in this document and on the relevant Drawings.
2	Materials not listed in this specification or on the relevant Drawings are not permitted.
3	In the event of any specified steel not being available, the *Contractor* advises the *Project Manager* in writing. The *Project Manager* is to reply in writing on alternative materials and/or sections.

6.4.2 Additional Requirements and Specifications

3) The *Contractor* is responsible for the stability and integrity of the existing and new structural elements affected by the Works during all stages of execution**,** including dismantling, temporary conditions, lifting/handling, and installation. The *Contractor* provides all temporary measures required to maintain stability and prevent damage or collapse.

4) All dimensions are verified on-site by the *Contractor* before any fabrication, ordering (including "cut-to-length" sheeting), drilling, or manufacture of steelwork and associated components commences.

Any discrepancies are notified to the *Project Manager*/Supervisor in writing as an Early Warning and/or technical query, as appropriate.

5) Unless stated otherwise in this Works Information, the *Contractor* supplies all fixings required for the Works, including bolts, nuts, washers, fasteners, clips and accessories necessary for the installation and fixing of:
   a) steel roof sheeting;
   b) wall/side sheeting;
   c) ridge capping's;
   d) flashings; and
   e) roof ventilators.

6) All fixings are compatible with the parent materials and environmental conditions, and comply with the applicable standards referenced in this Works Information.

6.4.3 Structural Steelwork (Sundry Items)

The following codes are required to be complied with:

- SANS 1200 HA: Structural steelwork (sundry items).

6.4.4 Cladding and Sheeting

The following codes are required to be complied with:

- SANS 1200 HB: Cladding and Sheeting

The table below indicates specifications pertaining to SANS 1200 HB and must be read in conjunction with the code:

Clause	Specification
Variations	
Cl 3.2.1	Add the following: In the event that galvanised steel sheeting is used, it is to be coated with a minimum of 275g zinc per m^2 and is free from white rust.
Cl 5.1.4	Add the following: The *Contractor* is solely responsible for ensuring that the materials and method of installation comply with the details set out on the Drawings. Any further modifications and additional details are to be accepted by the *Project Manager*.
Additional Clauses	
1	Where the use of nails and screws is required: • Galvanised iron nails and screws are to be used for galvanised sheet iron and sheet zinc. • Copper and copper alloy nails and screws are to be used for sheet copper and sheet lead.
	• Aluminium alloy or stainless-steel nails and screws are to be used for sheet aluminium.

6.4.5 Corrosion Protection of Structural Steel

The following codes are required to be complied with:

- SANS 1200 HC: Corrosion Protection of Structural Steel
- SANS 10064: The preparation of steel surfaces for coating
- SANS 121: Hot-dip galvanised coatings on fabricated iron and steel articles

6.5 Process control and IT works

N/A

7. List of drawings

7.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title
0.38/2049	2	Detail of Arc-line cladding
0.38/611	1	Details of cladding at Columns
0.38/2489	4	Level 31155 Plan Layout
18.38/3571	0	Floor Plan, Elevations and Section
0.38/1702	5	Internal Wall Cladding
0.38/1098		Sidewall detail of sliding fit to sheeting & flashing at north end of slope.
0.38/2328		Hatch cover details at lvl. 25820 and 31155 lvl.

C3.2 *CONTRACTOR*'S WORKS INFORMATION

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

Typical sub headings could be

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

This section could also be compiled as a separate file.

PART 4: SITE INFORMATION

General description

Location: 300 metres downstream of the Gariep Dam wall on the banks of the Orange River, near Norvalspont in the Eastern Cape.

History: Gariep's first two machines went into commercial service in 1971 and the last two in March 1976. The station was originally named after its political sponsor, Hendrik Verwoerd, and is 31 years old this year.

General: A feature of Gariep's machines is that they can be used as synchronous condensers, helping to stabilise the operation of the high-voltage interconnected system. Electricity from Gariep is fed into the Eskom network at the Hydra Distribution Station near De Aar, which is one of the distribution stations fed by the transmission lines linking the Western Cape with the power stations in Mpumalanga

GPS Co-ordinates: S30.62396 / E25.50403