NEC3 Engineering & Construction Contract

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

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

for **Majuba Demolition Works**

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

Part C1: Agreements & Contract Data

Contents:

		No of pages
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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:

Majuba Demolition Works

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.

Option A	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	
		A: Priced contract with activity schedule
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2: Changes in the law
		X7: Delay damages
		X15: Limitation of *Contractor's* liability for design to reasonable skill and care
		X16: Retention
		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)	**To be advised**
	Address	
	Tel	
	Fax	
	e-mail	
10.1	The *Supervisor* is: (Name)	**To be advised**
	Address	
	Tel No.	

Fax No.

e-mail

11.2(13)	The *works* are	**Majuba Demolition Works**
11.2(14)	The following matters will be included in the Risk Register	- **Normal construction hazards associated with machinery** - **Injuries and/or fatalities** - **Working at heights** - **Power supply interruptions or failures** - **Fire, dust and smoke** - **Damage to the *Employer*'s existing property** - **Space constraints** - **Non-compliance with construction regulations** - **Environmental risks relating to waste disposal** - **Labour/Community unrests** - **Non-compliance to plant regulations** - **Availability of resources** - **Employment of labour from local community** - **National Disaster (COVID 19) including any other unforeseen pandemics and outbreaks** - **Scope creep** **A risk register must be maintained throughout the contract period**
11.2(15)	The *boundaries of the site* are	**0.66/100425**
11.2(16)	The Site Information is in	**Part C5: Site Information**
11.2(19)	The Works Information is in	**Part C3: 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	**Seven (7) working days or defined in various parts of the Works Information relevant thereto.**
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	**31 January 2024** **(includes as-builts drawings and data packs)**
11.2(9)	The *key date*s and the *condition*s to be	***Condition* to be met** ***key date***

	met are:			
		1	**Site Establishment**	**1 November 2023**
		2	**Design Freeze**	**As per the accepted program**
		3	**Execution of the Works**	**As per the accepted program**
		4	**Commissioning**	**As per the accepted program**
30.1	The *access dates* are:	**1 November 2023**		
31.1	The *Contractor* is to submit a first programme for acceptance by	**7 November 2023**		
31.2	The *starting date* is	**1 November 2023**		
32.2	The *Contractor* submits revised programmes at intervals no longer than	**Seven (7) working days.**		
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	**The *Employer* and Others shall have access to the *works* during Demolition or about the *works* prior to completion. Such access by Others shall not relieve the *Contractor* from liability for the completion of the works in accordance with the Works Information and in terms of this contract.**		
4	**Testing and Defects**			
42.2	The *defects date* is	**52 weeks after Completion of the whole of the *works*.**		
43.2	The *defect correction period* is	**2 weeks from the date of notification of Defects.**		
5	**Payment**			
50.1	The *assessment interval* is	**The *assessment* interval is one (1) month. This will be done on the 20th of each month or on a Friday before if the 20th falls on the weekend.**		
51.1	The *currency of this contract* is the	**South African Rand (ZAR).**		
51.2	The period within which payments are made is	**30 days on receipt of a valid Tax Invoice, following the assessment and it is made by electronic transfer.**		
51.4	The *interest rate* is	**0% (zero percent) above 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:	**The Site**
	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:	**Majuba Power Station**
	and which are available from:	**the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer***
7	**Title**	**Majuba Demolition Works**
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**None**
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**	
A	**Option A**	**Priced contract with activity schedule**
60.6	**The method of measurement is**	**Based on the breakdown of items in the activity schedule, in accordance with the**

		standard system of measurements.
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	**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 Completion of the whole of the *works* are	**0.1% of the total of the Prices at Contract date per day up to a limit of 10% of the total of Prices at the Contract Date. The total of the Prices is as stated in C1.1 form of Offer and Acceptance, Offer.**
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 (not used with Option F)**	
X16.1	The *retention free amount* is	**Not Applicable.**
	The *retention percentage* is	**Ten (10) % of the total of Prices.**
X18	**Limitation of liability**	
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is	**the amount of the deductibles relevant to the event described in the insurance policy format selected in the data for clause 84.1 above,**

	limited to: • The *Contractor* does not fully comply with the provisions of the contract, or • The *Contractor* is in bridge of the *Employer*'s insurance policy conditions, or • The *Contractor* commits any negligence, wilful act or omission or bridge of statutory duty.	**which policy is available from Eskom Group Insurance**
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) 3 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 Z16 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 covered by the *Employer*'s insurance 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 insurance The *Employer*'s policy deductible, as at Contract Date, where covered by the *Employer*'s insurance Other property The replacement cost Bodily injury to or death of a person The amount required by applicable law
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

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

INSURANCE TABLE B

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

Z14 Nuclear Liability

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

Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

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

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

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

OEL means occupational exposure limit.

Parallel Measurements means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.

Safe Levels means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

Standard means the *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.

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

Z16 Criminal record clearance certificates

Z16.1 The *Contractor* provides, at the Contractor's cost, to the *Project Manager* criminal record clearance certificates for each employee of the *Contractor* before the *Project Manager* allows such employee on Site or any *Employer* premises.

Z16.2 The *Contractor* ensures that its Subcontractors or any of those Subcontractors' subcontractors provide to it criminal record clearance certificates for each employee of the Subcontractor or relevant other subcontractor before the *Project Manager* allows such employee on Site or any *Employer* premises.

Z16.3 The criminal record certificates are issued by a service provider accredited by the South African Police Services, are no older than four weeks and is valid until the completion date. If the completion date is extended through the operation of this contract, valid criminal record certificates are provided before their expiry.

Z16.4 If any such criminal record certificate is cancelled, withdrawn, invalidated, amended, or expires, or a criminal conviction is noted against any employee, the Contractor, the *Project Manager* may instruct the *Contractor* to ensure that such employee leaves the Site and the giving of this instruction is not a compensation event.

Z16.5 If the *Contractor* is unable to Provide the Works or a part thereof due only to the inability to provide the criminal record certificates, the *Employer* may terminate the *Contractor*'s obligation to Provide the Works (R 22) and the consequences then will be the same as if the Employer is terminating for R1 – R15 and R18.

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

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

	Weather measurement				
Month	Cumulative rainfall (mm)(1)	Number of days with rain more than 10mm	Number of days with min air temp **<** 0 deg.C	Number of days with snow lying at 08:00 CAT	Wind: Ash Fallout Exceeding allowable limit 1200mg/m^2
January	202	7	0	0	0
February	158	7	0	1	1
March	122	5	0	1	1
April	115	4	0	1	1
May	43	3	0	1	1
June	29	2	1	2	2
July	36	2	2	5	5
August	36	2	1	5	5
September	64	3	0	3	3
October	148	6	0	1	1
November	167	8	0	1	1
December	177	7	0	1	1

(1) for the extension of time resulting from abnormal cumulative rainfall shall be calculated in accordance with COLTO section 1215 method1.

NB. Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event, including proven effect of an impact on the execution of the works.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

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 .**
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	A risk register will be maintained throughout the contract period
11.2(19)	The Works Information for the *Contractor*'s design is in:	
31.1	The programme identified in the Contract Data is	
A	**Priced contract with activity schedule**	

11.2(20) 11.2(30)	The *activity schedule* is in The tendered total of the Prices is	ZAR **(in figures)** **(in words), excluding VAT**
	Data for Schedules of Cost Components	*Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).*
A	**Priced contract with activity schedule**	**Data for the Shorter Schedule of Cost Components**

PART 2: PRICING DATA
ECC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The *activity schedule*	3

C2.1 Pricing assumptions: Option A

1. How work is priced and assessed for payment

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

Identified and defined terms 11 11.2

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

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group.

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

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

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

2. Function of the Activity Schedule

Clause 54.1 in Option A states: “Information in the Activity Schedule 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 Activity Schedule 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 Activity Schedule. The Activity Schedule is only a pricing document.

3. Link to the programme

Clause 31.4 states that “The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance”. Ideally the tendering contractor will develop a high level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

4. Preparing the *activity schedule*

Generally it is the tendering contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor:*

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the Contractor estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

C2.2 the *activity schedule*

Description:		**Activity Schedules**				
Note :		The Contractor shall acquaint himself with the LATEST contents of the Technical specifications for Majuba Demolition Works - 374-MAJ-AABZ28-SP004-32, before obtaining any prices.				
ITEM NO	**Ref**	**DESCRIPTION**	**UNIT**	**Quantity**	**Activity Price**	**TOTAL**
WORKS TO BE FORFORMED BY THE CONTRACTOR						
1		**Preliminaries and Generals**				
	1.1	Site Establishment	Sum	1	R	R
	1.2	Site De-Establishment	Sum	1	R	R
2		**Items to be Salvaged - Safe removal of items and transport to Africa Store for storage**				
	2.1	Bin Feeder Conveyors (00EAC11 AND 00EAC21)	Sum		R	R
	2.2	All pulleys and pulley bearings	Sum		R	R
	2.3	C & I instrumentation	Sum		R	R
	2.4	Idlers and Idler frames (trough and return)	Sum		R	R
	2.5	200 corrugated iron sheeting	Sum		R	R
	2.6	Fluid couplings	Sum		R	R
	2.7	Fire detection control panels	Sum		R	R
	2.8	Assizing Complex	Sum		R	R
	2.9	3 Fire Suppression Control panel on the Assizing Complex	Sum	3	R	R
	2.1	SURGE AND ASSIZING FEEDER (00EAC12 AND 00EAC22)				
	2.10.1	Complete drive (motor, gearbox, coupling and base)	Sum		R	R
	2.10.2	All pulleys and pulley bearings	Sum		R	R
	2.11	OVERLAND AND STACKER LINK (00EAC13, 00EAC21 AND 00EAC30)				
	2.11.1	Complete drive (motor, gearbox, coupling and base)	Sum		R	R
	2.11.2	All pulleys and pulley bearings	Sum		R	R
	2.11.3	Idlers and Idler frames (trough and return)	Sum		R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
3		**C & I Cables to be Re-Routed**				
	3.1	C&I Cables - to test C&I are live i.e 24V - determine to which plant the cables are routed and controlling. Report this to the project manager immediately	Sum	15	R	R
	3.2	Keep a UVG cable joining kit ready and available - in the event that critical plant is tripped	Sum	15	R	R
	3.3	Cutting of C&I cables - verify no alarms at the DCS. Confirm any new alarms with C&I computer section. Immediately report to the project manager for any new alarms arising.	Sum	15	R	R
	3.4	Neatly terminate and secure remainder of existing cables	Sum	15	R	R
	3.5	Removed cables to be rolled up and stored in a secure location	Sum	15	R	R
	3.6	Reroute of cables to cola plant reclaim plant (worst case at the end of the reclaim plant)	Sum	15	R	R
4		**Electrical Cable Testing**				
	4.1	Check for live Cables - If found, report to Contracts Manager timeously	Sum		R	R
	4.2	Reroute all live cables as per instruction from Contracts Manager timeously	Sum		R	R
5		**Electrical Cable to be Re-Routed**				
	5.1	MV Cables supplying Tippler's 6.6kV Boards in the tippler substation.	Sum	Four	R	R
	5.2	Cables shall be re-routed and buried (800mm - excavation required) from the CSY Main Substation (+0 4UBS) running along the route of the old bin feed conveyor gantries.			R	R
	5.3	The route is approximately 550m in length, the cable specification (parameters), as set out in the Technical Specification document, are specified in the SOW - 4.5.		Approx. 2500m	R	R
	5.4	The Contractor is required to provide drawings of the new cable route.			R	R
	5.5	Cable specification (185mm2, 3 Core, 6000V, XLPE, stranded copper, PVC sheathed, armoured cable will be required – cable code DXE03SCV)			R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	5.6	Keep a Electrical cable joining kit ready and available - in the event that critical plant is tripped	Sum		R	R
	5.7	Cutting and splicing of Electrical cables	Sum		R	R
	5.8	Neatly terminate and secure remainder of existing cables	Sum		R	R
	5.9	The Contractor decommissions, removes and transports associated cables in the Coal Stockyard Substation cable tunnels to the Cable Yard as per attached electrical supply list			R	R
	5.1	Removed cables to be rolled up and stored in a secure location	Sum		R	R
6		**Demolition**				
	6.1	The Contractor dismantles and disposes off the old Bin Feed Conveyors Magnet House Structure and gantry that is currently located in the vicinity of the Bin Feed Conveyor Tail-End.	Sum		R	R
	6.2	The Contractor removes all coal hang ups and transports to a location approved by the Project Manager.	Sum		R	R
	6.3	Gantry of Bin Feed Conveyors 00EAC11 and 00EAC21				
	6.3.1	The Contractor dismantles conveyor gantry cladding and disposes off corrugated sheeting and associated structural members. (All sheets to be sent to Africa Stores)	Sum		R	R
	6.3.2	Feed Chute and frame removal	Sum		R	R
	6.3.3	Head Chute and frame removal	Sum		R	R
	6.3.4	Metal Detector and frame removal	Sum	2	R	R
	6.3.5	Mass meters (including frame removal) - storage of the mass meter in secure location for spares on exising plant	Sum	4	R	R
	6.3.6	HECU panel	Sum	2	R	R
	6.3.7	Belt Rip	Sum	4	R	R
	6.3.8	Speed sensor	Sum	2	R	R
	6.3.9	Misalignment	Sum	8	R	R
	6.3.10	Pull keys	Sum	24	R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.3.11	Release belt tension… (*counter weight blanks removal)*	Sum		R	R
	6.3.12	Cut, remove and roll up conveyor belt	Sum		R	R
	6.3.13	Remove Drive Motor and transport to Africa Store	Sum		R	R
	6.3.14	Remove Fluid Coupling and transport to Africa Store	Sum		R	R
	6.3.15	Remove Drive Gearbox and transport to Africa Store	Sum		R	R
	6.3.16	Remove Head Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.17	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.18	Remove Drive Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.19	Remove Snub Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.20	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.21	Remove TakeUp Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.22	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.23	Remove Tail Pulley Assembly and transport to Africa Store	Sum		R	R
	6.3.24	Remove Idler rolls and transport to Africa Store	Sum		R	R
	6.3.25	Remove Idler Frames and transport to Africa Store	Sum		R	R
	6.3.26	Dismantle conveyor structure (stringers, urights, trestles, pulley frames, etc) and dispose off	Sum		R	R
	6.3.27	The plinths and concrete bases on the natural ground should be uprooted and removed and the ground made good. This excludes plinths on concrete floors, i.e. plinths in the transfer and drive houses. This includes the plinth next to the station fence at the bin feed conveyor tail.	Sum		R	R
	6.3.28	The Contractor refurbishes the sump next to the Bin Feed Conveyors Drive House.	Sum		R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.3.29	The Contractor refurbishes the sump next to the Assizing Complex.	Sum		R	R
	6.4	Assizing bin and Surge Bin			R	R
	6.4.1	The Contractor dismantles conveyor gantry cladding and disposes off corrugated sheeting and associated structural members.	Sum		R	R
	6.4.2	Remove all hoists	Sum		R	R
	6.4.3	Remove Proportional gate actuator	Sum		R	R
	6.4.4	Remove Proportional gate	Sum		R	R
	6.4.5	Dismantle and remove Assizing Bin	Sum		R	R
	6.4.6	Remove the clampshell actuator	Sum		R	R
	6.4.7	Remove the clampshell	Sum		R	R
	6.4.8	Dismantle and remove Feed Chute	Sum		R	R
	6.4.9	Remove the compressor	Sum		R	R
	6.4.10	Remove the the air receiver	Sum		R	R
	6.4.11	Remove the air cannon	Sum		R	R
	6.5	Feeder Conveyors (00EAC12 & 00EAC22)				
	6.5.1	Dismantle Shuttle Winch Frame and Sheave Wheels. Dispose off	Sum		R	R
	6.5.2	Head Chute and frame removal	Sum		R	R
	6.5.3	Release belt tension	Sum		R	R
	6.5.4	Cut and remove conveyor belt	Sum		R	R
	6.5.5	Remove Drive assembly (*Motor, High Speed Coupling, Gearbox and Base*) and transport to Africa Store	Sum		R	R
	6.5.6	Remove Head Pulley Assembly and transport to Africa Store	Sum		R	R
	6.5.7	Remove Tail Pulley Assembly and transport to Africa Store	Sum		R	R
	6.5.8	Remove Idler Rolls and Frames. Dispose off	Sum		R	R
	6.5.9	HECU panel	Sum	2	R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.5.10	Belt Rip	Sum	4	R	R
	6.5.11	Speed sensor	Sum	2	R	R
	6.5.12	Misalignment	Sum	4	R	R
	6.5.13	Dismantle shuttle conveyor frame and dispose off	Sum		R	R
	6.6	Reclaim and Stacker Transfer house				
	6.6.1	The Contractor dismantles all cladding and disposes off corrugated sheeting and associated structural members of the Assizing complex building up to the point where it adjoins the Stacker-Reclaimer transfer house	Sum		R	R
	6.6.2	The Contractor designs for the cladding, affected roofing and support structure of the Eastern Side of the Stacker-Reclaimer transfer house	Sum		R	R
	6.7	Overland Link Conveyors (00EAC13, 00EAC23)				
	6.7.1	Feed Chute and frame removal	Sum		R	R
	6.7.2	Dismantle Moving Head winches and Frames. Transport winches to Africa Store	Sum		R	R
	6.7.3	Head Chute and frame removal	Sum		R	R
	6.7.4	Release belt tension (*counterweight blanks removal)*	Sum		R	R
	6.7.5	Cut, remove and roll up conveyor belt	Sum		R	R
	6.7.6	Remove Drive assembly (*Motor, Fluid Coupling, Gearbox and Base*) and transport to Africa Store	Sum		R	R
	6.7.7	Remove Head Pulley Assembly and transport to Africa Store	Sum		R	R
	6.7.8	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.7.9	Remove Drive Pulley Assembly and transport to Africa Store	Sum		R	R
	6.7.10	Remove Take-Up Pulley Assembly and transport to Africa Store	Sum		R	R
	6.7.11	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.7.12	Remove Tail Pulley Assembly and transport to Africa Store	Sum		R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.7.13	Remove Idler rolls and transport to Africa Store	Sum		R	R
	6.7.14	Remove Idler Frames and transport to Africa Store	Sum		R	R
	6.7.15	HECU panel	Sum	2	R	R
	6.7.16	Belt Rip	Sum	4	R	R
	6.7.17	Speed sensor	Sum	2	R	R
	6.7.18	Misalignment	Sum	4	R	R
	6.7.19	Dismantle conveyor structure (stringers, urights, trestles, pulley frames, etc) and dispose off	Sum		R	R
	6.8	Old Stacker Link Conveyor (00EAC30)				
	6.8.1	Feed Chute and frame removal	Sum		R	R
	6.8.2	Head Chute and frame removal	Sum		R	R
	6.8.3	Release belt tension…(*counter weight blanks removal)*	Sum		R	R
	6.8.4	Cut, remove and roll up conveyor belt	Sum		R	R
	6.8.5	Remove Drive assembly (*Motor, Fluid Coupling, Gearbox and Base*) and transport to Africa Store	Sum		R	R
	6.8.6	Remove Head Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.7	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.8	Remove Drive Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.9	Remove Take-Up Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.10	Remove Bend Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.11	Remove Tail Pulley Assembly and transport to Africa Store	Sum		R	R
	6.8.12	Remove Idler rolls and transport to Africa Store	Sum		R	R
	6.8.13	Remove Idler Frames and transport to Africa Store	Sum		R	R
	6.8.14	Dismantle conveyor structure (stringers, urights, trestles, pulley frames, etc.) and dispose off	Sum		R	R
	6.8.15	HECU panel	Sum	2	R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.8.16	Temperature	Sum	1	R	R
	6.8.17	Speed sensor	Sum	1	R	R
	6.8.18	Misalignment	Sum	2	R	R
	6.8.19	Pull keys	Sum	4	R	R
	6.8.20	Take up switches	Sum	2	R	R
	6.9	Sampling plant and associated conveyors				
	6.9.1	Sample Tower, Surge and Assizing Complex and Link Building	Sum	1	R	R
	6.9.2	With the Assizing complex removed, remedial works is conducted on the door that links the coal lab to the Assizing complex.	Sum		R	R
	6.9.3	Leave the shelter from the coal lab between the coal lab and old sampler building	Sum		R	R
	6.1	Lighting				
	6.10.1	Building lighting installation to be removed			R	R
	6.11	Access in between Overland Conveyors				
	6.11.1	Installation of Staircase/walking platform (e.g. C&I to access O/L Mass meters)	Sum		R	R
	6.12	Fire Protection Piping				
	6.12.1	The pipeline (0 0SGA91) that supply fire water to sizing complex to be re-routed to run on the same (X & Y co-ordinates) and Z co-ordinate to be changed to 0M level. The pipeline is to run on the pipe supports/plinths. (100m)	Sum	100 m	R	R
	6.12.2	The Contractor demolishes the fire reticulation piping alongside the conveyor to be demolished (300m)	Sum	300 m	R	R
	6.12.3	Isolation Valve (0 0SGA95 AA501) on the line that supply fire water to bin feeder to be isolated, blank flange to be installed and the piping from the highlighted valve (0 0SGA95 AA501) downstream to be demolished.	Sum		R	R

ITEM NO	Ref	DESCRIPTION	UNIT	Quantity	Activity Price	TOTAL
	6.12.4	After the contractor has re-routed and demolished the fire pipeline as specified on this technical specification, the contractor shall pressure test the re-routed piping as per ASME B31.3 Power Piping Standard and the re-routed piping shall be commissioned as per 240-56356376 - Site commissioning for low pressure services.	Sum		R	R
	6.12.5	Pressure tests - All pressure tests shall be conducted as per ASME B31.3 Two pressure gauges shall be used for the pressure test	Sum		R	R
	6.12.6	Issue Pressure Test Certificate of Complience	Sum		R	R
	6.13	Fire Detection (C&I)				
	6.13.1	Solenoid - Decommissions, removes and dispose in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.		3	R	R
	6.13.2	Pressures switches - Decommissions, removes and dispose in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.		3	R	R
	6.13.3	Pressure gauges - Decommissions, removes and dispose in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.		6	R	R
	6.13.4	The contractor decommissions, removes, and disposes all damaged Fire Detection Linear Heat Detection Cable (Approximately 200 meters in total) in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.		200 meters	R	R
TOTAL (EXC. VAT)						R

PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the *works*

1.1 Executive overview

Majuba Power Station is in the process of completing the yard optimization project as part of the Emergency Coal Recovery. Part of the works is the demolition of the damaged and existing structures with associated buildings.

1.2 Existing System

The picture below shows the existing layout of the structures and buildings.

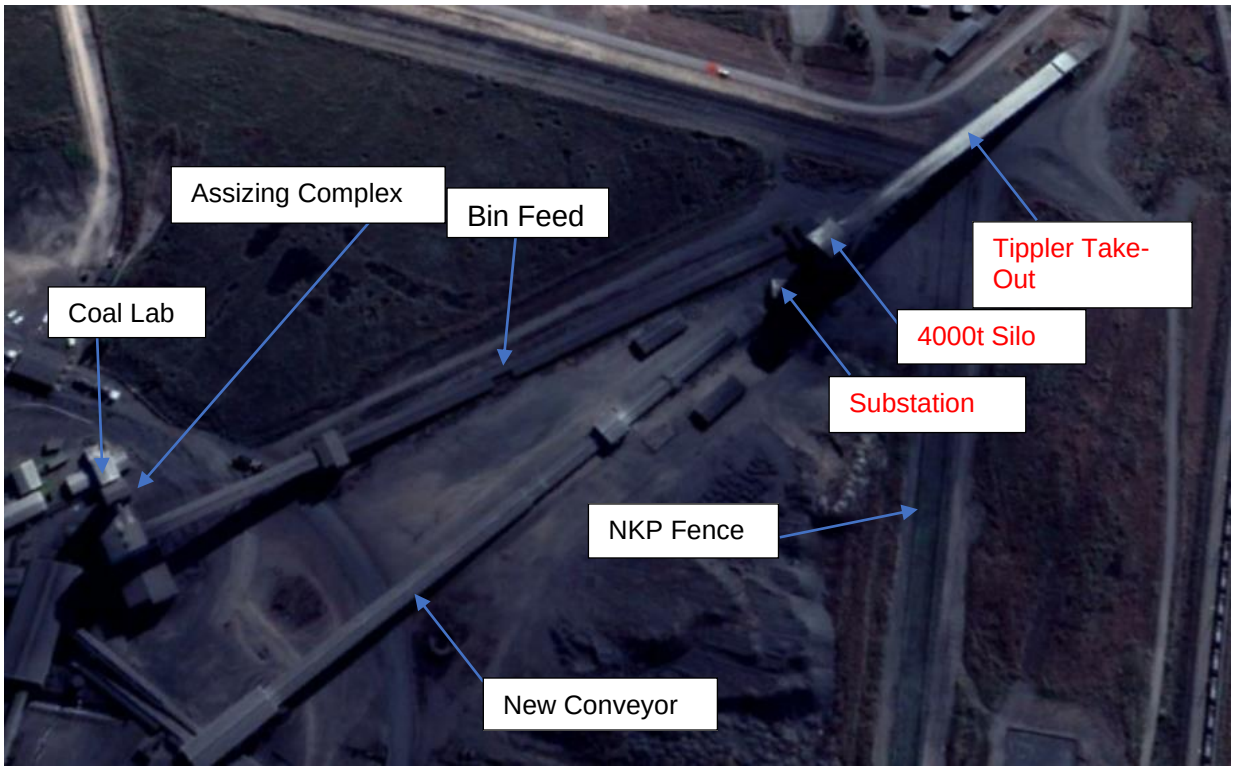

Figure 1: Showing The Conveyor Layout

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

The objective of this contract is to demolish the damaged and existing structures with associated buildings to rehabilitate the area as the existing buildings(structures) are no longer required.

1.4 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	**Meaning given to the abbreviation**
C&I	Control and Instrumentation
NEC	New Engineering Contract
QCP/ITPs	Quality Control Plan/ Inspect, test, plan
SANS	South African National Standards

2 Management and start up.

2.1 Management meetings

Meetings will be held monthly between the *Project Manager* and the *Contractor* (and any other co-opted members). The *Contractor* is represented at each meeting by the appropriate members of the staff.

The venue for these meetings is as determined by the *Project Manager*. The *Project Manager* or delegated personnel writes the minutes of the minutes.

Any action of the *Project Manager, Supervisor, Contractor* and *Adjudicator* implied in the minutes of the meetings with implications is confirmed by a communication given in accordance with this Works Information and NEC.

The *Contractor* reports the overall progress and as a minimum requirement, the following is addressed:

a) *Contractor*'s current activity progress and planned finish dates.
b) *Contractor'*s to report on all items listed in the NEC core clause, 31
c) *Contractor*'s and *Project Manager*'s programme agenda compared for delays and milestone targets;
d) Current and projected manpower by class;
e) Health, Safety, Environmental and Quality Management;
f) The progress of any other relevant activities;
g) To discuss any technical or commercial issues,
h) Skills Development, Localisation and Industrialisation;
i) CSI and Infrastructure Project Implementation Plan;
j) Procurement progress;
k) Problem areas or concerns.

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Weekly when required	Venue determined by the *Project Manager*	Relevant appointed members of the Risk or/and Compensation Event Committee
Overall contract progress and feedback (from contract date to execution commitment)	Bi-weekly	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*
Planning meetings (including integration meetings with Others)	Weekly	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*
SHE Meetings	Fourth nightly	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*
Payment Assessment	Monthly – 20th of every month	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*
Engineering Meeting	Monthly or as determined by the *Project Manager*	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*

Quality Meeting	Monthly	Venue determined by the *Project Manager*	*Employer*, *Contractor*, *Supervisor* and Others as determined by the *Project Manager*

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *works*. Records of these meetings shall be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting. People attending meetings must have authority to make decisions and execute decisions.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall be used for the purpose of confirming actions or instructions under the contract.

2.2 Documentation control

2.2.1 Documentation and Configuration Management

2.2.1.1 Document identification

All documents supplied by the *Contractor* are subject to the ***Employer's*** acceptance. The language of all documentation is required to be in English. The *Contractor* includes the *Employer*'s drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and his *Subcontractors*. Drawing numbers are assigned by the *Employer* as drawings are developed.

The *Contractor* is required to submit the Vendor Document Submission Schedule (VDSS) as per agreed dates to the delegated ***Employer's*** Representative. The *Employer* pre-allocates document numbers on the VDSS and sends back to the *Contractor* through the delegated ***Employer's*** Representative. The VDSS is revisable, and changes must be discussed and agreed upon by all parties. The *Contractor*'s VDSS indicates the format of documents to be submitted.

2.2.1.2 Document Submission

The *Contractor* is required to submit documents as electronic and hard copies and both copies must be delivered to the Eskom Representative with a transmittal note. Electronic submissions could be done using the SharePoint Transmittal Site functionality and route. The *Contractor* is provided with the following standard: Technical Documents and Records Management Work Instruction (240-76992014) which must be adhered to. For bulk document submission, the following link can be used https://zendto.eskom.co.za/. Hard copies are submitted to the *Project Manager* accompanied by the Transmittal Note.

2.2.1.3 As-built drawings, operating manuals, and maintenance schedules

The *Contractor* is responsible for the compilation and the supply of all the documentation required during the various project stages and to provide the documentation programmed to link with the milestone dates. Documentation and drawings are programmed for delivery to meet the milestone dates and in accordance with the agreed VDSS.

At Take-over the *Contractor* provides two full sets of as-built documentation as hard copies and electronic PDF and native CAD formats (DGN or DWG) which must be compatible with Bentley Microstation) to the *Employer*.

All documentation, including reports, manuals, etc. is in the English language.

2.2.1.4 Documentation System

The ***Contractor's*** document system is comprehensive in the management and control of the documentation based on a master document. Automatic prevention of duplication of numbering or ambiguity is built into the system.

All documentation submitted, by the *Contractor*, is accompanied by a signed documentation transmittal note.

The *Contractor* provides the following three weeks before the commissioning

- As-built revision of all the design documents;
- Operating and maintenance manuals were applicable.
- Inspections and test records for the tests and inspections required.

2.2.1.5 Documentation Control

The *Contractor* implements a comprehensive document control of all documents, their revision status and of the document status in relation to the 'as built' and 'as designed' or commonly known as “Approved for Construction” status. Procedures, document control, flow diagrams and indexes are included in this system. The drawing register contains the following information and is submitted monthly in a Microsoft Excel format to the *Employer*:

- Drawing number (*Employer* and *Contractor's* number)
- Revision
- Approval status
- Location of drawing at that stage
- Drawing description
- Sheet number
- Transmittal number
- Date of submission

2.2.1.6 Material Certificates

The *Contractor* provides a copy of the Materials Test certificates for all components and electrical cables included in the Data Books.

2.2.1.7 Final Data Book

The *Contractor* is responsible for the provision of a final data book.

The final data book is broken down in two main categories:

- Technical category
- Cost and planning category

The document contains all the relevant documentation, designs, drawings including as-built drawings, materials certificates, and product specifications on all products used, tests and results etc. which were applicable during the contract. The *Contractor* ensures that all relevant documentation is traceable and cross referenced where applicable.

All planning, scheduling, bar charts, milestones, detailed cost breakdown information, packing and transport are included in the final document.

The content is laid out in a logical manner with main and sub-sections where all the relevant documentation is grouped.

The contents are presented in a hard cover file or files.

The data packages are prepared on a daily basis for all completed work.

Two hard copies and one soft copy of the Data Book are handed to the *Employer* for acceptance.

All submission of documentation to and from the Service Provider shall be accompanied by a populated transmittal form. Only the Document Controller is authorised to sign the transmittal which will then indicate proof of receipt. The document Controller will return a signed transmittal to the sender.

All instructions to the Service Provider will be in writing and shall be deemed to have been received if left with the Service Provider or his agent at the *works* or at the business premises of the Service Provider or at their office on the site.

2.3 Health and safety risk management

The following documents are issued to the *Contractor* whereby, in turn, the *Contractor* will be needed to formulate its own which will be in line with the ones provided by the client as well as also stipulated in the SHE Specification:

- SHE Policy (32-727)
- Eskom's COVID-19 Health and Safety Policy Statement (240-155373927)
- Occupational Health and Safety Incident Management (32-95)
- O H and S Incident Management Definitions and Parameters (240-131838225)
- Service Provider Health and Safety Requirements (32-136)
- Life-Saving Rules (240-62196227)
- Substance Abuse (32-37)
- Vehicle and Driver Safety Management (240-62946386)
- Employee's right of refusal to work in an unsafe situation (240-43848327)
- Emergency Preparedness for Majuba Power Station(240-158605436)
- Annexure B: Eskom Acknowledgement form for OHS legal and other requirements (240-77471499)
- MRP Baseline Risk Assessment (240-70044602)
- SHE Specification for Majuba Rail Project (240-64038115)
- Personal Protection Equipment (240-120054284)

The *Contractor* shall comply with the health and safety requirements. The *Contractor* ensures that all persons who are employed and or deployed to work on site undergo police clearance and are certified to have no criminal records. This is required before any of the *Contractor*'s employees are allowed or given access to start work on Site (Majuba Power Station).

2.4 Environmental constraints and management

2.4.1 Environmental Requirements

In order to ensure that the EMP is implemented, the following staff resources are made available by the *Employer*: -

• The Engineer to assume responsibility for monitoring the compliance of the management measures contained in the EMP.

The requirements below were extracted verbatim from the environmental management plan (EMP), as instructions to the *Contractor*. The complete approved EMP document is kept in the site office.

2.4.2 Training and environmental awareness

The *Contractor* together with the EM and the Engineer ensures that the *Contractor*'s employees receive adequate environmental training prior to the commencement of construction. The Engineer will present an induction presentation on environmental awareness. The cost, venue and logistics shall be for the *Contractor*'s account. Where possible, training will be conducted in the language of the employees.

The Engineer will convey the contents of this section, the conditions of the record of decision (ROD) from Mpumalanga Department of Agriculture and Land Administration (M-DALA) as well as the landowners' special conditions to the *Contractor*'s site staff and discuss the contents in detail with the *Employer*'s project team and contractors at a pre-construction meeting. This formal induction training shall be done with all main and sub-contractors. Record of the training date, people whom attended and discussion points shall be kept by the Engineer.

The following documents are issued to the *Contractor* whereby, in turn, the *Contractor* will be needed to formulate its own which will be in line with the ones provided by the client as well as also stipulated in the SHE Specification:

- SHE Policy (32-727)
- MRP Baseline Risk Assessment (240-70044602)
- SHE Specification for Majuba Rail Project (240-64038115)
- Environmental Authorization.
- CEMP
- Water Use License
- Majuba Power Station Operational Environmental Management Programme (ENV/GEN/PROG/01)
- Majuba Power Station Waste Management Procedure (ENV/GEN/WI/12)

The *Contractor* shall comply with the environmental criteria and constraints in order to ensure that the CEMP is implemented, the following staff resources are made available by the *Employer*: -

• The Environmental Manager to assume responsibility for monitoring the compliance of the management measures contained in the CEMP.

• The Environmental Manager is to assume responsibility for setting up a landowner liaison committee, consulting with landowners and resolving any issues or disputes regarding aspects such as fire, theft, safety, security and complaints and who liaises with the *Project Manager* on a regular basis.

The complete approved CEMP document is kept in the site office.

2.5 Quality assurance requirements

The quality requirements are as per ISO 9001:2008 and as per Eskom document QM-58, SUPPLIER CONTRACT QUALITY REQUIREMENTS SPECIFICATION.

The *Contractor*'s company quality documents are subject for verification and acceptance by the *Project Manager*.

2.5.1 Quality Management

a) The *Contractor* submits a fully detailed Quality Control Plan (QCP) and Inspection and Test Plan (ITP) for acceptance within two weeks of the Contract Date. The *Project Manager* indicates hold point in the ITP.

b) The *Contractor* submits a schedule of unplaced orders to be placed and this is updated regularly.

c) The *Contractor* is responsible for defining the level of QA/QC (intervention Points) or inspection to be imposed on his Sub-Contractors and suppliers of material in the Quality Control Plans (QCPs). This level is based on the criticality of equipment and should be submitted to the *Project Manager* for acceptance.

d) The *Contractor* submits on a monthly basis, the following QA returns:
   - A register of Defects with those older than 30 days being flagged, and an explanation attached
   - Register of accepted Defects
   - A register of Non-Conformance Report
   - Monthly Project Quality Report
   - Monthly updated Site and pre-site programmes
   - Inspection dates
   - Site Acceptance Tests
   - Inspections completed / outstanding

e) All quality control documentation is submitted to the *Project Manager* within 7 days of contract date.

2.6 Programming constraints

2.6.1 General

The *Contractor* submits a single programme that incorporates the programmes of all of his sub-contractors. The interface points between his different sub-contractors as well as the interface points between the individual sub-contractors and the *Contractor* are to be clearly identified.

Project Key Milestones (Refer to C1.2 Contract Data Part 1 of Engineering and Construction Contract) as supplied by the *Project Manager*, are incorporated into the programme as per the NEC3 Core Clause 31.2.

2.6.2 Details of the *Employer* and Others who will be occupying the working areas at the same time

Other contractors are working in the same area as the work of this contract. In this regard, the *Contractor* co-ordinates his work with the *Project Manager* to maintain harmonious working conditions on Site. During the progress of the *works* the Contractor provides access to Others who also execute work in the same area, on an as and when required basis.

The *Contractor* makes his own assessment of the problems and difficulties which may be encountered for providing access to and interfacing with Others (this includes access difficulties experienced during construction, demolition or commissioning phase).

No extra payment or claim of any kind on account of providing reasonable access is allowed.

2.6.3 Computerised planning and reporting

The *Project Manager* does not intend duplicating the *Contractor*'s programming and planning, however, portions or high level extractions of the Accepted Programme may be used in the *Employer*'s internal master project programme for control purposes. The *Contractor* submits updated computer files on a monthly basis, or at any other time as required by the *Contractor* or as instructed by the *Project Manager*.

The updated computer file shows the logic and all filters and layouts used in the programme. The accepted programme will be in Primavera XER file (latest version) or MS Project has been adopted by the *Employer* for all planning, progress monitoring and reporting. The *Project Manager* requires one project programme to be used and updated during the installation process, which will remain with Eskom. This ensures that any changes, deviations to the Programme can be carried out on the agreed programme and monitored. The initial programme supplied to Eskom after Contract award must be fully resource loaded.

Any changes that are required to be made to the Project/Programme i.e. scope changes, delays and the such, will be recorded through the Eskom change process and documentation, where all parties agree to the changes and sign. The *Contractor* and *Project Manager* shall agree on the format of how the updates will be done i.e. PDF, XER, and the frequency of the updates i.e. such as on a weekly basis, or at any other time as required by the *Contractor,* or as instructed by the *Project Manager*.
The *Contractor* obtains this software and applies it for the planning and control of the *works* in line with the accepted Work Breakdown Structure.

2.6.4 Additional Programme Requirements

The *Contractor* uses the Critical Path Method (CPM) technique for programme and planning. The programme shows the actual critical path clearly. The preparation of the programme contains a programme basis document. This basis document describes the programme and planning methodology, format, project execution philosophy, resource assumptions, qualifications and any other items that may have a substantive impact on the schedule.

The programme layout takes into account the accepted WBS, reflecting the manner in that the *works* are to be performed and how control data are summarised, reported and monitored. The minimum requirements of the WBS for **MAJUBA POWER STATION DEMOLITION WORKS** are as per the Works Information.

The following levels of programme are to be used for this project for dynamic integrated project control:

- Management level programme (Level 1)
- Project level programme (Level 2)
- Control level programme (Level 3)
- Discipline speciality programme (Level 4)

2.6.4.1 Management Level Program (Level 1)

The management level programme is used to establish work goals and overall time frames for the *works*.

It is a statement of project objectives recorded in graphic form. The management level programme defines:

- Established goals or major milestones key dates,
- The duration of major operations and their relationship to one another,
- Identified Long Lead material items,
- Responsibility assignments for accomplishing project objectives.

2.6.4.2 Project Level Program (Level 2)

A "rolled up" programme from the control level programme is produced. It is separated by Unit, plant area and by Phase (Engineering, Procurement, Construction and Commissioning).

2.6.4.3 Control Level Program (Level 3)

The project level programme is prepared representing the significant work activities and deliverables associated with the works. The end product is a time scaled bar-chart schedule developed through use of a logic network. This programme is separated by Unit, by plant area, by Phase, by WBS.

The work within each plant area is broken down by engineering discipline, procurement of tagged equipment and bulks, construction by *Contractor*, and commissioning & start-up. The control level programme is resource-loaded. It forms the basis for progress measurement, progress curves and histograms for each discipline within a plant area.

The programme includes:

a) Major milestones, interface dates, access dates and key dates (for the new plant, existing plant and between Subcontractors)

b) The duration of major activities and their relationship to one another.

c) Identified long-lead material items.

d) Responsibility assignments for accomplishing project objectives end product is a time scaled bar-chart programme developed using logic network.

This programme is separated by unit, by plant area, by phase, by WBS. The work within each plant area is broken down by engineering discipline, procurement, delivery, construction by the *Contractor,* start-up and commissioning. The programme is resource-loaded and it forms the basis for progress measurement, progress curves and histograms for each discipline within a plant area. .This is used for Evaluations and for the accepted programme after contract award. This will be saved and used as the original.

The *Contractor* submits a Level 3 Programme to the *Project Manager* which breaks the Works Information down to a sub-system level as per the Activity Schedules. This programme is in alignment with the *Contractor*'s Method Statement. The *Contractor*'s Forecasted Rate of Invoicing (FRI) should also align with

2.6.4.4 Discipline Speciality Program (Level 4)

The need for supplemental or discipline speciality programme is dependent upon the requirements and/or circumstances of the contract.

The discipline speciality programme developed and maintained by the *Contractor* is generated for tracking and control of various activities and deliverables for all phases of the contract. This programme is usually formatted as a spreadsheet or database report utilising the WBS structure.

This programme typically represents day-to-day tasks which are work unit based and become summarised in the Level 3 activities

Resource information for manpower, plant, material and equipment and reflected in resource histograms is provided by the *Contractor*. Staffing histograms are required to be submitted based on “equivalent personnel” the resource loading on the programme

2.6.5 Submission of revised programmes and progress reporting

The *Contractor* submits a PDF and one electronic copy in Primavera or MS Projects as well as a two weeks lookahead Dash board in excel, of each revised programme and progress report to the *Project Manager* for acceptance. All formally issued reports are to follow the progress reporting requirements as stated below.

2.6.5.1 Weekly Status Reports

A weekly status report is submitted by the *Contractor* to the *Project Manager*. This report is less formal than the monthly report and is used as a tool for the day-to-day management of the project. Contents of a weekly report may include the following
items:

- The updated Primavera programme
- Programme summary narrative
- Progress and performance summaries
- Schedule rolling horizon
- Sectional Completion and Key Milestone status

2.6.5.2 Monthly Progress Report

The contents of the report may vary from month to month depending upon the phase of the project and/or the items of management focus. However, the basic framework of the report consists of the following:

- Executive summary (narrative identifying major movement within the reporting period).
- Revised Programme indicating, actual progress of work against last Accepted Programme.
- A one-month look ahead work window.
- Activities completed during current reporting period per discipline, including the activities of the *Employer* and Others.
- Activities in progress during current reporting period per discipline, including the activities of the *Employer* and Others.
- Activities undertaken during next reporting period per discipline, including the activities of the *Employer* and Others.
- Status overview by unit, by plant area, by phase.
- Key issues / Items of concern and corrective actions.
- Progress curves and tabular progress reports.
- Cost and Cash flow.
- Cost curve 'S-curve'.
- Early warning log.
- Compensation event log.
- General planning report (computer generated).
- Critical activities report.
- Key event report (computer generated).
- Report selecting all of the activities of the *Employer* and Others - (computer- generated).
- Updated bar charts.
- Updated resource schedule and histogram (If changed).

- Updated activity schedule (If changed and if applicable, Option A).
- Forecast rate of payment schedule updated with actual progress.
- Statement and report on *works* ahead and behind progress.
- The monthly progress reporting cycle is based on a month end “cut-off”.

2.6.6 Meetings

Meetings are held weekly between the *Project Manager* and the *Contractor* (and any other co-opted members). The venue for these meetings is as determined by the *Project Manager* at the inaugural meeting. The *Project Manager* writes the minutes of these meetings. Any action of the *Project Manager*, *Supervisor*, *Contractor* and Adjudicator implied in the minutes of meeting are to be confirmed by a separate communication given in accordance with this contract.

The *Contractor* reports the overall progress and as a minimum requirement, the following is addressed:

- *Contractor*’s current activities progress and planned finish dates.
- *Contractor*’s planned start and finish dates for the *works*
- *Contractor*’s and *Project Manager*’s programme agenda compared for problematic differences.
- The progress of any other relevant activities.
- To discuss any technical or commercial issues.

2.6.7 Planning Programmes

The *Contractor* develops a contract programme which will include a bar chart conforming to the project master programme dates included and sufficient detail to indicate the *Contractor*’s intention for executing the *works*. This programme covers major items relating to design, procurement, manufacture, delivery, erection, start-up and commissioning. The critical path is clearly shown.
Key milestones, access dates, interface dates and commissioning key dates are clearly identified in the contract programme, including access dates and release of terminal points that involve the *Employer* or Others.
The programme makes provision for site related preparation such as site establishment, safety induction and medical clearance of the entire Contractor’s staff that will be working on site.

2.6.8 Procurement and Manufacturing Programme

The Contractor is required to submit a procurement and manufacturing programme for review by the *Project Manager* which identifies as a minimum:
a) Details of orders and target dates for placing subcontracts
b) Any detailed design required within the manufacturing period
c) Long-lead delivery items
d) Hold-points and witness-points for inspection and tests for acceptance and release.
e) CSI roll out plan to be incorporated.
This programme is in sufficient detail to enable the work to be adequately tracked and progressed.

2.6.9 Construction Programme

The *Contractor* is required to submit a construction programme that is resource loaded for review by the *Project Manager*. This programme includes the following criteria:
a) Full details of all civil/mechanical/electrical/C&I/Low Pressure Services terminal point release requirements
b) Identify any erection or commissioning activities that may affect other construction activities
c) Identify when services are required for commissioning purposes

This programme meets the requirements of the Contractor and Others engaged on the project. The programme shall be based on the following working hours: Where applicable

a) Twenty four (24) hours per day
b) Seven (7) days per week
c) Holidays included as working days
d) Pay weekends to be negotiated (if working 7 day work week)

2.6.10 Commissioning Programme

During the progress of the *works*, the *Contractor* develops a detailed commissioning programme with sufficient detail to enable the work to be adequately progressed and tracked to meet the commissioning key dates.

Training programme to be incorporated into the commissioning programme. The commissioning programme is detailed to sub-system level and is fully integrated with the Construction Programme.

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

The *Contractor* ensures that all key personnel requiring access to Site meet the requirements of the *Employer*'s security and medical qualifications as well as training and experience generally required by similar utilities elsewhere in respect of similar work.

The *Contractor* provides orientation and technical training for all key personnel requiring access to Site in accordance with the requirements of the *Employer*'s Industrial Safety Programme, and, in general, the whole framework of plant rules (as applicable) and regulations which may be in force at the *Employer*'s Site from time to time, which is available on request.

The following are considered key persons by the *Employer,* and the *Contractor* submits a brief CV with associated records of qualification and related experience at the Contract Date:

- *Contractor's* project manager
- *Contractor's* planner
- *Design* engineer (s)
- Construction supervisor(s)
- Health and safety representative
- Environmental representative
- Human performance officer

Within two weeks from the start date, the *Contractor* submits an organogram of his key persons (both as required by the *Employer* and as independently stated by the *Contractor* under the Contract Data), their contact details and how they communicate with the *Project Manager* and the *Supervisor*.

The *Contractor* shall propose any additional resources applicable to this scope.

2.8 Invoicing and payment

The are no additional requirements to the invoicing and payment clauses in Section 5 of the core clauses. At each *assessment interval,* the *Contractor* submits to the *Project Manager* a forecast rate of invoicing that includes all the expected payments by the *Employer* to the *Contractor* on a month by month basis.

The invoices from the *Contractor* contain the following information:

a) The registered name of the *Contractor*
b) *Contractor*'s VAT registration number
c) Address of the *Contractor*
d) Employer's contract number
e) The *Employer*'s VAT registration number 4740101508;
f) The amount paid to date
g) The value of the invoice split into payments as per the activity schedule as indicated in the Price Lists
h) Any retention monies to be deducted from the invoice
i) Any interest payable
j) Escalation formula used where applicable
k) Settlement discount
l) Proof of ownership of material supplied

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 showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate.

The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information.

- Email addresses for invoice submission;
  - All invoices; InvoicesgrpcapitalOTH@eskom.co.za
  - The *Project Manager* shall be copied when submitting invoiced.
- All queries and follow ups on invoice payments should be made by contacting the FSS contact centre
  - Tel; (011) 800 5060 or email; fss@eskom.co.za
- The *Contractor* ensures compliance with the tax Requirement for submitting invoices electronically
- Electronic invoicing does not guarantee payment but ensures visibility of all invoices and ensures that no invoices get lost. If the goods receipt (GR) is not done, the invoice will be parked and the system will automatically send an email to the *Project Manager* to do good receipts. This is also tracked by *Employer* through the parked invoice report.
- The *Contractor* can request a parked invoice report from the Finance Shared Services (FSS) contact centre which can be followed up and corrected. You are welcome to forward the details of invoices corrected to the FSS contact centre.

2.9 Insurance provided by the *Employer*

Refer to clause Z13

2.10 Contract change management

Clause 6 Compensation Events of the conditions of contract refers.

2.11 Provision of bonds and guarantees

The *Contractor* is not required to provide any performance bond or guarantees.

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

There are no additional requirements to the compensation event clauses in Section 6 of the core clauses.

2.13 Training workshops and technology transfer

There will be no requirement of training on this particular project.

3 Engineering and the *Contractor*'s design

3.1 *Employer*'s design

a) All Structural designs and inspections are in accordance with the following *Employer's* Design Standards:

- 240-56364545 – Structural Design and Engineering Standard
- 240-55864504 – Belt Conveyor Structural Steelwork and welding Specification
- 240-107981296 – Constructability Assessment Guideline

The above listed design standards shall be issued to the *Contractor* upon request to the *Project Manager*.

All designs produced are reviewed for acceptance from the *Employer* as per the Eskom design review procedure. Acceptance of the design by the *Employer* does not release the *Contractor* from design liability.

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

3.2.1 General

a) Demolition, Engineering, Manufacture, quality control, procurement, handling, shipment and transport to/from site, storage, offloading, construction and erection, finishing, tools and materials for the entire *works* related to the Majuba Power Station Demolition Project.

b) The *Contractor* demolishes, constructs, and erects the *works* in accordance with the *Contractor's* accepted design and takes cognisance of SANS 2001 and SANS 1200.

c) The *works* are designed for constructability, reliability, operations and maintainability.

d) The *Contractor* designs and procures all construction material and equipment required to perform the *works*.

e) The *Contractor* identifies and includes all items required to form a complete, reliable, fit for purpose operating *works*, which complies with the requirements as stipulated in this Works Information.

f) The *Contractor* provides all engineering calculations, drawings (hard and soft copy) models, inspection/quality reports, construction records, commissioning test reports, and other documentation as required by the Works Information.

g) The *Contractor* provides dimensioned general arrangement drawings of the designed remedial *works* and detailed drawings of all components of the *works*, sufficiently detailed for the preparation of maintenance and operating procedures.

h) The *Contractor* supplies drawings and documentation as specified in the Works Information. This includes, but is not limited to, GA drawings, fabrication drawings, construction drawings, as built drawings, commissioning and handover documentation, maintenance and operating manuals for the fabrication and installation of the *works*.

i) The *Contractor's appointed Professional Engineer* provides technical oversight during the *works*.

j) Other Plant and Materials or items associated with this *works* is utilised with prior approval from the *Project Manager*.

3.2.2 Civil & Structural Design

a) The *Contractor* takes full professional accountability and liability for the *works*.

b) The *Contractor* provides the following to the *Project Manager* for review and acceptance:

- A Level 4 schedule (schedule with defined activities) for the design scope clearly highlighting all activities involved, major milestones and provision.

c) Detailed drawings for construction. Drawings are also submitted in CAD formats (.DGN).

d) All submitted drawings to be signed by a Professional Civil Engineer or Technologist with ECSA registration number stated on drawing.

e) Construction Specifications for the *works*.

f) Any discrepancy or ambiguity between the *Employer's* Specifications or requirements is immediately brought to the attention of the *Project Manager* for clarification.

g) The *Contractor* is mandated in terms of Construction Regulations 2014: Duties of Designer, 6(1) a - j and 6(2) a – d, to fulfil the duties described therein for the detailed and temporary *works* designs done by the *Contractor*. Any risk associated with the *Contractor's* design is highlighted to the *Employer* together with mitigation measures. The *Contractor* is responsible for construction monitoring at the level required to certify that the *works* have been constructed in accordance with the *Contractor's* design.

3.2.3 Design Scope

The *Contractor* develops a detailed design (where applicable) in accordance with the latest SANS, *Employer* design standards and specification referenced herein.

The *Contractor* develops construction drawings for the modifications of the structures. These drawings are in accordance with the Constructability Assessment Guideline (240-107981296).

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

3.3.1 Execution Scope

Prior to the execution of the *works*, all design documentation and detailed method statements from the *Contractor* are to be submitted to the *Project Manager* for review and acceptance by the *Employer's* design office. The *Contractor*'s Professional Engineer conducts the necessary inspection during execution to sign-off and certify the *works*.

3.4 Other requirements of the *Contractor*'s design

a) All Structural designs and inspections are in accordance with the following *Employer*'s Design Standards:

- 240-56364545 – Structural Design and Engineering Standard
- 240-55864504 – Belt Conveyor Structural Steelwork and welding Specification
- 240-107981296 – Constructability Assessment Guideline
- SEP (Sound Engineering Practice) must be employed where necessary

b) All designs produced is reviewed for acceptance from the *Employer* as per the Eskom design review procedure. Acceptance of the design by the *Employer* does not release the *Contractor* from design liability.

3.5 Use of *Contractor*'s design

Where demolition has been completed, there may be sections requiring closeup or rehabilitation, for instance, where a gantry has been removed, the opening needs to be closed and necessary electrical and C&I and mechanical works may be executed.

3.6 Design of Equipment

The *Contractor* assesses any possible obstacles with the existing structures. The *Contractor* notifies the Project Manager of any possible obstacles before the *works* commence.

The *Contractor* is responsible for making sure that the positioning of the offered equipment respectively makes it possible for maintenance personnel to perform Technical Requirements.

3.7 Equipment required to be included in the *works*

All necessary equipment to be brought to site for the execution of the Works is a sole responsibility of the *Contractor*

3.8 As-built drawings, operating manuals, and maintenance schedules

3.8.1 Civil & Structural Drawings

The drawings include final general arrangements. Drawings include sections and details to fully identify design concepts, design loadings and any other special features.

Drawings are fully dimensioned and the dimension figures on the drawing are deemed to be correct, even if the drawings are not to scale. No dimensions are obtained from a drawing by scaling.

All drawings show full endorsement by a Professional Civil Engineer (including Pr. Eng Number and signature evident on all civil and structural drawings).

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

a) The *Contractor* will be required to provide their own labour for the execution of the works.

b) The *Contractor* is hereby informed to take note of the applicable employment conditions with the neighbouring community which was agreed with the *Employer* in relation to recruitment of the people. Failure by the *Contractor* to adhere to employment conditions stipulated above may have a negative impact on the *Contractor* and such shall be the responsibility of the *Contractor*.

c) The *Contractor*'s recruitment policies and procedures shall be fair and shall not unfairly discriminate against any person or group of persons. The *Project Manager* shall be entitled to inspect the *Contractor*'s recruitment policies and procedures, as well as any records pertaining to pre-selection checks, upon request.

4.1.2 BBBEE and preferencing scheme

The company shall maintain or improve upon their current B-BBEE Contribution level for the duration of the contract. The supplier will be required to submit a new B-BBEE certificate within 3 months, should ownership of the company change during the life of the contract.

The *Contractor* is expected to submit a valid B-BBEE Verification Certificate from a SANAS accredited Verification Agency each year. Failure to submit such a Certificate may be regarded as the breach of the contract by the *Employer.*

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

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

- Local Content and Production

This works/service is a non-designated sector and therefore no local production threshold is applicable to qualify for further evaluation. Tenderers will also be encouraged to utilise local and local to site resources.

- Skills Development (not weighted criteria)

Eskom intends to improve Skills Development by ensuring that technical support is directed towards enhancing supply capacity and capability within the industry or sector of operation. By doing this the capacity and competitiveness of the local supply base will be increased and the goals of shared growth, employment creation, poverty reduction and skills development will be achieved.

- The supplier will be required to provide WIL to at least two (02) local to site learners

The *Contractor* shall keep accurate records and provide the *Project Manager* with reports on the *Contractor*'s actual delivery against the above stated ASGI-SA criteria.

The *Contractor*'s failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

- **Retention**

  a. Eskom shall be permitted to retain 2.5% (two and half percent) of the invoices (excluding VAT) as security for the fulfilment by the tenderers of their SD&L obligations.

b. Once Eskom has verified that tenderers have fulfilled their SDL&I obligations, the 2.5% retained shall be approved for reimbursement by Eskom to suppliers within 90 (ninety) days of verification by Eskom.

- **Reporting**

a. The tenderers shall on a monthly /quarterly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SD& L obligations described above.

b. Eskom shall review the quarterly reports submitted by the tenderers within 60 (sixty) days of receipt of the reports and notify the tenderers in writing if their SD&L obligations have not been met.

c. Upon notification by Eskom that the tenderers have not met their SD&L obligations, the tenderers shall be required to implement corrective measures to meet those SD&L obligations before the commencement of the following quarter, failing which retention clauses shall be invoked.

d. Every contract shall be accompanied by the SD&L implementation schedule which must be completed by the tenderers and returned to SD&L representative for acceptance **before** contract award. This will be used as a reference document for monitoring, measuring and reporting on the tenderer's progress in delivering on their stated SD&L commitments.

4.2 Subcontracting

4.2.1 Preferred subcontractors

There are no subcontractors that are preferred by the *Employer*. The Service Provider to choose their own entities to subcontract should they wish to.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

It is recommended that the *Contractor* subcontracts using the NEC.

4.2.3 Limitations on subcontracting

N/A

4.2.4 Attendance on subcontractors

N/A

4.3 Plant and Materials

4.3.1 Quality

Quality compliances of all the materials and related plant machinery will be measured against the technical defined requirements engineering specification to ensure the full quality assurances.

4.3.2 Plant & Materials provided "free issue" by the *Employer*

Electrical cabling shall be free issued and the rehabilitation required materials such as sheeting where closing is required. Consumables shall not be free issued.

4.3.3 *Contractor*'s procurement of Plant and Materials

Not applicable

4.3.4 Spares and consumables

It must be noted that where designs are applicable, material is to be provided by the *Contractor.*

4.4 Tests and inspections before delivery

The *Employer* carries out quality inspections at his discretion.

All inspections and testing to be performed in accordance with the Quality Control Procedure (QCP) developed by the *Contractor*.

4.5 Marking Plant and Materials outside the Working Areas

Eskom approved barricading is to be used. Guidance to be provided by the *Project Manager* upon request.

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

The contractor shall provide all required equipment and tools to execute the scope. The employer will not provide any required equipment or tools.

4.7 Cataloguing requirements by the *Contractor*

Not applicable

5 Construction

5.1 Temporary works, Site services & construction constraints

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

The *Contractor* is required to:

a) Adhere to the South African Environment Protection Act, the waste management code of practice and the South African Occupational Health and Safety Act No. 85 of 1993, the regulations promulgated thereunder and Eskom Safety, Health, Environment and Quality (SHEQ) Policy 32-727 for all works.

b) Submit a comprehensive method statement of the entire works to the *Project Manager* for acceptance prior to the start of the works

c) Submit a project specific safety file to the *Employer* for comments / acceptance.

d) Submit a detailed level 3 schedule for the works to the *Project Manager* for acceptance 2 weeks after contract award.

e) Prepare earthworks for craneage access and working rigging areas if required.

f) Continuously monitor the condition in demolition areas and surrounding areas for any hazardous substances and in such case, the *Contractor* takes necessary precautionary measures.

g) Manage his access to the working areas and the Site.

h) Manage his activities on Site to ensure that no interference takes place between his work and that of others.

i) Complete "Contract Activities Daily Reports".

j) Liaise with the *Project Manager* regarding utilities and telephone facilities required for his Site establishment.

k) Maintain and promotes labour harmony on the Site and in the working environment.

l) Immediately report any potential labour disharmony to the *Project Manager.*

m) Not recruit or employ any personnel from the *Employer* and Others, without prior acceptance of the *Project Manager.*

5.1.2 General (additional)

a) The *Contractor* is required to confirm all site dimensions, levels and cast-in items positions on site prior to casting of concrete or any fabrication of steel and other materials that are required for the *works*.

b) The *Contractor* is required to submit a comprehensive method statement of the *works* to the *Project Manager* for acceptance prior to the start of the *works*

c) The *Contractor* takes full professional accountability and liability for all temporary items required for the execution of the *works*.

d) The *Contractor* notifies the *Project Manager* of the hold points.

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

a) The *Contractor* is responsible for the safety of all personnel involved in the works.

b) The *Contractor* is responsible for the design, erection, maintenance and removal of all temporary bracing or propping or falsework required for the execution of the works.

c) The *Contractor* takes all necessary precautions to ensure that none of the existing structures and services that are not in the scope of works is damaged during any demolition required. In the event

that structures and services which are not in the scope of work is damaged, the Contractor is liable to repair or replace the damaged items at their own cost.

d) All construction works complies with SANS 1200 and 2001 standardised specification for civil engineering construction.

e) Access to the site is controlled and it is governed by the terms and conditions lay down by Majuba Power Station security officials. The proposed site will be shown to the Contractor during the site meeting or clarification meeting by the *Employer*.

f) The *Contractor* liaises with Eskom SHE Practitioner / Officers for Safety Induction prior work to commence. During Safety Induction, site access permits with a copy of the medical and a certified ID copy/passport (not older than three months) should be handed to the Eskom SHE Practitioner/ Officer for approval.

g) The *Contractors* employees will take signed site access documents to security reception official in order to finalize their site access.

h) The *Contractor* ensures that all employees carry their site access forms with them all the time.

i) The *Contractor* is subjected to alcohol testing on a daily basis.

j) The *Contractor* submits applications for vehicle permit to the *Project Manager.* The personnel and vehicles entering and leaving the site are subjected to routine searches.

k) The *Contractor* obtains “Gate Removal Permit” from the *Project Manager* before materials and equipment can be removed from site. The “Gate Removal permit” gives itemised list of material and equipment to be removed from site.

l) The *Contractor* ensures that a tool list is available on the day of arrival and the all tools are captured on the tool list. The tool list will be handed over to the Reception Security official that will stamp the tool list. The tool list will be kept safe and will be used when tools needs to be removed from site. This message should be handed over to any Subcontractor that will be working in Majuba Power Station.

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

The *Contractor* keeps records of his people working at Majuba Project offices including those of his subcontractors which the Project Manager or *Supervisor* have access to at any time. Any restrictions onsite will be communicated by the *Employer* prior commencement of the works.

5.1.5 Health and safety facilities on Site

The *Contractor* to attend a Safety Induction before work commences to get guidelines on all safety requirements on site.
The *Contractor* provides a First Aid service and SHE representative to his employees and subcontractors. In the case where these prove to be inadequate, like in the event of a serious injury, the *Employer*’s Medical Centre and facilities will be available. Outside the *Employer*’s office hours, the *Employer*’s First Aid Services are only available for serious injuries and life threatening situations. The *Employer* recovers the costs incurred, in the use of the above *Employer*’s facilities, from the Contractor.

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

As per the Majuba Power Station Environmental Policy, which is available from the *Project Manager,* the *Contractor* complies with the policy. Not applicable to this scope of work.

5.1.7 Title to materials from demolition and excavation

Refer to the Works Information.

5.1.8 Cooperating with and obtaining acceptance of Others

Proper co-ordination and work planning must be done when working in any area where others are also performing work or activities. Interfacing is required with the site staff and other contractors.

5.1.9 Publicity and progress photographs

The taking of photographs at Majuba Power Station including the *Project Works* is restricted and subject to the approval by the *Project Manager*.

For the Progress Reporting Requirements, the *Project Manager* may prohibit the taking of such photographs and/or require that all such photographs be taken by an official *Employer* photographer. In the latter event, the *Contractor* is required to make arrangements directly with the photographer for the taking of the photographs required by the *Contractor* for the purpose of the Progress Reporting Requirements.

5.1.10 *Contractor*'s Equipment

The *Contractor* submits a list of all equipment and tools (with serial numbers, wherever possible) to the *Project Manager* in order to get approval before the items can be brought onto site.

A copy of the approved list of items must be supplied to the *Contractor.* Equipment that is not listed on a tool/equipment list cannot be removed from site unless proof of ownership is produced.
Equipment and vehicles left on site is done so at the *Contractor*'s own risk.

5.1.11 Information provided by the *Employer*

The following documents are issued to the *Contractor* for information upon appointment.

Document Number / ID	Document Title
Multiple	All available archive drawings
240-56364535	Architectural Design and Green Building Compliance Manual
240-56364545	Structural Design and Engineering Standard
240-99527377	Inspection Manual for Civil Works at Eskom's Power Stations
240-55864504	Belt Conveyor Structural Steelwork and welding Specification
240-107981296	Constructability Assessment Guideline
ENV/GEN/WI/12	Majuba Waste Management Work Instruction
0.66/99332 Rev2	Coal Stockyard Conveyor Mods, Overall Layout Showing, Demolition Scope
0.66/99333 Rev0	Coal Handling Plant Conveyor Mods Demolition Scope In Schematic Diagram Format

5.1.12 Site services and facilities

The *Contractor* shall provide everything else necessary for Providing the Works that is not mentioned below.

5.1.12.1 Site Yard

It is required, for the proper co-ordination and execution of the works that the *Contractor* has an office on site for the duration of the contract.
The *Project Manager* will assign an area for the *Contractor*'s site establishment.
Contractor to provide RP's for services connections to be done by adhering to the plant permit to work conditions.
No services provided by the *Employer* are guaranteed continually. Services may be interrupted periodically.
The *Contractor* is responsible for connection to the closest point of supply.

5.1.12.2 Supply of Electricity

Electricity will be made available for construction purposes free of charge from power points which will be indicated by the *Project Manager*. The *Contractor* is responsible for the provision of the reticulation system from the point of supply. Both 220 (AC) Volt and 380 (AC) Volt are available on request. All points of supply requested by the *Contractor* are provided in terms of quantity and location at the discretion of the *Project Manager*.
No guarantees of power supply quality are given and power supply breaks of some duration may occur without warning. Planned outages are also a possibility. The *Contractor* makes arrangements at his own expense to improve continuity and quality of power where necessary for any reason and no claim of any nature relating to power failures is considered.
No connection is made to the permanent installation at the Power Station without the prior acceptance of the *Project Manager*. The power supply is managed in accordance with the latest revision of the Eskom safety regulations i.e.:
a) 32-846, Operating Regulations for High-Voltage Systems
b) 36-681, Generation Plant Safety Regulations
c) COC for the site installation is required prior to power being switched on

5.1.12.3 Lighting

The *Contractor* at his own expense provides temporary local lighting in accordance with the requirements of the OHS Act as amended. The *Project Manager* provides no local lighting. All construction lighting is the responsibility of the *Contractor*.

5.1.12.4 Water

Contractor to supply own potable water.

5.1.12.5 Roads

Main access roads are surfaced and complete and may be used by the *Contractor* with the necessary care. The *Employer* maintains the Site roads, described above, to a fair condition. Any costs incurred by the *Project Manager* from damage caused to underground services, structures, etc. as a result of the *Contractor* not using the prescribed routes is recovered from the *Contractor*.

The *Contractor* provides temporary access points from the prescribed routes and roads to the points where the *Contractor* is required to perform work, having first obtained permission in writing from the *Project Manager.*

5.1.12.6 Setting-Out Beacons

The *Project Manager* provides permanent beacons marking the main setting out grid lines for the works, and permanent level benchmarks.
The *Contractor* takes reasonable steps to preserve beacons and benchmarks provided by the *Project Manager* who is not to be held responsible if any existing beacons are removed as long as other beacons exist.

5.1.13 Facilities provided by the *Contractor*

5.1.13.1 *Contractor*'s Yard, Offices, Workshops and Stores

It is required, for the proper co-ordination and execution of the *works* that the *Contractor* has an office on Site for the duration of the contract.

The *Contractor* includes in his establishment rates for all further treatment of the yard areas that he considers necessary for his entire operation throughout his period of occupation and under all weather conditions. The *Contractor* also includes for all security fencing, security and access arrangements. The yard will be kept clean and tidy at all times, this will include all workshops and storage areas under the control of

the *Contractor.* Maintenance of the yard is the *Contractor's* responsibility and is for the *Project Managers* acceptance.

Outfall drainage of all surface run-off drains is constructed by the *Contractor* to the acceptance of the *Project Manager* to minimise erosion and to effect control of contaminated water. The *Contractor's* plan for the layout of his yard area is accepted by the *Project Manager* prior to occupying the yard and the *Contractor* does not occupy any site area other than that allocated to him. The *Contractor's* plan states fully what measures are taken regarding removal and storage of topsoil, stabilisation of eroded areas and further loss of topsoil.

The *Contractor* provides, erects and maintains for his own use adequate size office accommodation and stores together with such drainage, lighting, heating, and hot and cold water services as may be required. Provision is also made for adequate parking and a turning area adjacent to all the aforesaid structures. The *Supervisor* prior to commencement of any work on Site accepts all designs and layouts for these provisions.

The *Contractor* dismantles and clears the yard of all such temporary structures and associated foundations and infrastructure at the direction of the *Supervisor* on Completion of the whole of the *works*. No such dismantling and clearance work is carried out without prior acceptance from the *Supervisor*.

5.1.13.2 Telecommunications

Neither a network point nor a telephone is available on site. Should the *Contractor* require one, he is to make his own arrangements with relevant authorities.

5.1.13.3 Sanitary Facilities and Refuse

The *Contractor* is to supply own sanitary facilities at his *Contractor's* yard. A refuge control system will be established by the *Contractor*. All domestic waste and refuge shall be collected and disposed of as directed by the *Project Manager*, at the Power Station refuse disposal site.

5.1.13.4 Equipment/Appliances

Any electrical Equipment, or appliances, used by the *Contractor* conforms to the applicable OHS Act safety standards and is maintained in a safe and proper working condition. The *Project Manager* has the right to stop the *Contractor*'s use of any electrical Equipment, or appliance, which, in the opinion of *Project Manager*, does not conform to the foregoing. Inspection of equipment/appliance will be done as required by OSH Act.

The *Employer* may assist the *Contractor* with the off-loading of equipment, plant and material but the responsibility for off-loading remains with the *Contractor*.

Any special tools and equipment to be used on site for the execution of the *works* is the responsibility of the *Contractor*.

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

The *Contractor* is responsible for all the interfaces of this work including work that is performed by Others.

The *Contractor* communicates with the *Project Manager* in writing all challenges that can affect the works.

5.1.15 Survey control and setting out of the *works*

The *Project Manager* designates the working area boundary limits and assign for the *Contractor's* use access roads, parking areas, storage areas, existing facilities areas and construction areas. The *Contractor* does not trespass in or on areas not designated for his work.

The *Contractor* is responsible for keeping *Contractor's* personnel out of areas not designated for *Contractor's* use, except, in the case of isolated work located within such areas for which the *Contractor* is authorised to do so.

5.1.16 Excavations and associated water control

The *Contractor* to comply with Permit To Work conditions and/or excavation permit conditions.

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

All known services will be brought to the attention of the *Contractor* by the *Project Manager*. Should the *Contractor* encounter any other services in the work area, he will immediately bring them to the attention of the *Employer's* site representative who will issue instruction as to what actions are to be taken.

The protection of all pipes, gauges and plant is of extreme importance. Should any damage take place which is due to the *Contractor* negligence, another *Contractor* will be brought onto site to affect repairs. All costs will be to the account of the *Contractor* who caused the damage.

5.1.18 Control of noise, dust, water and waste

The Site is located within the Majuba Power Station Coal Stockyard and Coal Handling area which is inherently noisy and extremely dusty.

The *Contractor* maintains a high standard of cleanliness during the conduct of his activities at the Power Station. This includes areas allocated for storage of materials, site offices etc. to the satisfaction of the *Project Manager.* The *Contractor* keeps these areas clean and free from accumulation of waste materials and refuse regardless of the source.

The *Contractor* ensures during sweeping and dusting, that a minimum amount of dust is liberated into the atmosphere. Cleaning by vacuum cleaners is preferred and the use of compressed air for cleaning is prohibited.

The *Contractor* is responsible for the prompt removal of all domestic waste to a designated disposal area. The disposal area will be on or in the vicinity of the Power Station and be indicated by the *Project Manager.*

For the purpose hereof, "waste" any matter, whether liquid or solid or any combination thereof, which is a by-product, emission, residue or remainder of any process or activity carried out in connection with the *works* and which is not reused on the Site in the in the ordinary course of carrying out the *works* within seven days of production.

The *Contractor* provides an adequate number of marked bins and containers at offices, in yards, at workshops and on the Site for the temporary storage of domestic waste. These bins and containers is subject to acceptance by the *Project Manager.* The *Contractor* is required to segregate certain items of waste by type as designated by the *Project Manager.*

Bins and containers are emptied and the domestic waste is removed to the designated area at least once a week. All the temporary and waste removed to the designated area at least once a week. All the temporary storage areas for bins and containers are kept tidy and not constitute a nuisance to others. The *Contractor* takes all required steps to avoid spillage of waste alongside the bins and containers during removal and disposal thereof.

All waste that cannot be contained in either a bin or container is placed on a temporary waste site which the *Project Manager* identifies. The waste is removed as soon as possible but in any event at least once a week. No burning of waste is allowed at the Power Station.

Hazardous waste is dealt with in accordance with the safety, health and environmental requirements of the works and the *Contractor* is solely responsible for the proper disposal thereof.

During demolition, the *Contractor* ensures that a minimum amount of dust is liberated into the atmosphere. No deviation from the South African Labour Relations Act and any other relevant labour legislation will be allowed.
All waste emanating from Demolition Works should be treated as contaminated waste and be disposed at a registered hazardous land fill site.

5.1.19 Sequences of construction or installation

The *Contractor* is responsible for the construction and installation of the equipment according to the *Contractor's* construction and installation plans.

5.1.20 Giving notice of work to be covered up

The *Contractor* provides a notice of work to be covered up to the *Supervisor.*

5.1.21 Hook ups to existing works

The *Contractor* takes cognisance of the fact that the Power Station and the Rail Yard will be operational during the construction period. Occupations/ outages/permit to work on or in close proximity to the "live" plant can be arranged with the Power Station as per the Generation Plant Safety Regulations 36-681 and the E7/2 for Transnet.

The *Contractor* is required to execute the *works* in phases such that *works* in areas that are clear of the "live" plant are prepared and ready for the tie-in into the existing plant. The tie-in into the existing plant and the dismantling of the redundant Plant and Material is to be planned accordingly. The *Employer* provides the following information for assistance and clarity during the development of the implementation/construction methodology:

- Occupations are arranged for work to be done, including proper occupation plans and work method statements.
- The *Contractor* works on existing installations only if the work is done in the presence of and as directed by the *Supervisor*.
- The *Contractor* promptly notifies the *Project Manager* and the *Supervisor* in the event of faults and failures.

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 except for the work listed below which may be done after the Completion Date but in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work except that listed below 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.

a) Apart from any statutory data packages required, the *Contractor* also compiles a data package of the relevant drawings, test certificates etc. which he submits to the *Project Manager* for acceptance. These include, but are not limited to:
    - Welding procedure specifications
    - Welder qualifications
    - Non-destructive weld test results
    - Weld test certificates
    - Steel grade certificates
    - Concrete test results
    - As-built data and drawings of the completed *works* upon handover. As-built drawings are submitted in PDF and native CAD formats (.DGN)
    - Structural Certificate signed by the Professional Civil Engineer confirming that *works* have been constructed in accordance with the design.

5.2.2 Use of the *works* before Completion has been certified

Completion means all *works* are complete.

5.2.3 Materials facilities and samples for tests and inspections

The *Contractor* provides a copy of the Materials Test certificates for all components included in the Data Books.

5.2.4 Commissioning

The *Contractor* complies with the commissioning standard 240-127618272 Completion of Mega and Major Power Plant projects.

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

Not applicable

5.2.6 Take over procedures

All stakeholders to be present during the final walkdown to ensure the Works is executed to satisfactory completion.

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

The *Contractor* to comply with permit to work conditions.

5.2.8 Performance tests after Completion

Where compliance is necessary, for example, on the Electrical Statutory section (Electrical COC is required), the Master electrician is to provide necessary certification. This is not limited to electrical systems.

5.2.9 Training and technology transfer

Not applicable

5.2.10 Operational maintenance after Completion

All necessary documentation shall be handed over to the *Project Manager*, where applicable.

6 Plant and Materials standards and workmanship

6.1 Investigation, survey, and Site clearance

The *Contractor* is required to carry out further investigation or assessments of existing facilities or of the Site before commencing excavation, demolition, etc. Any constraints discovered shall be brought to the *Project Manager's* attention for guidance.

6.2 Building works

Modified sections of buildings shall follow the latest approved standards (SANS) and, if necessary, Eskom guidelines may be provided.

6.3 Civil engineering and structural works

The *Contractor* is required to adhere to the latest editions of, and the normative references within, the following SANS standards, codes of practice, regulations & standards:

Number	Title
240-56364535	Architectural Design and Green Building Compliance Manual
240-56364545	Structural Design and Engineering Standard

Number	Title
240-76992014	Project / Plant Specific Technical Documents and Records Management Work Instruction
240-86973501	Engineering drawing Standard
240-99527377	Inspection Manual for Civil Works at Eskom's Power Stations
240-55864504	Belt Conveyor Structural Steelwork and welding Specification
240-107981296	Constructability Assessment Guideline
240-54937450	Fire Protection & Life Safety Design Standard
240-56356376	Site commissioning for low pressure services
AWS D1.1	American Welding Society - Structural Welding Code - Steel
SANS 10044-1	Welding Part 1: Glossary of terms
SANS 10064	The preparation of steel surfaces for coating
SANS 10100-1	The Structural Use Of Concrete Part 1 – Design
SANS 10100-2	The Structural Use Of Concrete Part 2 – Materials and execution of work
SANS 10160	Basis of structural design and actions for buildings and industrial structures
SANS 10162-1	The structural use of steel Part 1: Limit-states design of hot- rolled steelwork
SANS 10162-2	The structural use of steel Part 2: Cold-formed steel structures
SANS 10400 series	The Application of the National Building Regulations
SANS 1200 series	Standardised specification for civil engineering construction
SANS 121	Hot dip galvanized coatings on fabricated iron and steel articles - Specifications and test methods
SANS 2001 series	Construction Works
SANS 2001-CS1	Construction works Part CS1: Structural steelwork
SANS 1921	Construction and management requirements for works contracts
SANS 2553	Welded, brazed and soldered joints - Symbolic representation on drawings
SANS 50025 series	Hot rolled products of structural steels Parts 1-6
SANS 9606-1	Approval testing of welders - Fusion welding Part 1: Steels
SANS 1123	Pipe flanges

6.4 Electrical & mechanical engineering works

The works shall be carried out according to the latest approved SANS and Safety Standards. Where no standard is available, *The Employer* shall provide guidance.

6.5 Process control and IT works

Not applicable

6.6 Other [as required]

6.6.1 Works to be performed by the *Contractor*

The *Contractor* performs a walk down with the *Project Manager* to determine the battery limits of the demolition and to determine the equipment that needs to be salvaged if there are additions to the salvage list (Section **Error! Reference source not found.**).
The *Contractor* salvages all items as per the salvage list and site walk down and stores the items as agreed with the *Project Manager*
After the new Takeout Conveyors, new Stacker Link Conveyor and extended Overland Conveyors have been commissioned. The following structures together with their associated equipment, i.e. take-up towers, moving heads, shuttles, etc, are to be demolished:

1) Gantry of Bin Feed Conveyors 00EAC11 and 00EAC21
2) Assizing bin
3) Surge Bin
4) Feeder Conveyors (00EAC12 & 00EAC22)
5) Overland Link Conveyors (00EAC13, 00EAC23)
6) Old Stacker Link Conveyor (00EAC30)
7) Sampling plant and associated conveyors
   i) Sample Tower, Surge and Assizing Complex and Link Building (refer to drawings 0.66/99332 rev 2 and 0.66/99333 rev 0)
   ii) With the Assizing complex removed, remedial works is conducted on the door that links the coal lab to the Assizing complex.
   iii) With the Link Building removed, remedial works is conducted on the opening left on the remaining building.

The *Contractor* removes all coal hang ups and transports it to a location approved by the *Project Manager*s

1) The *Contractor* ensures the demolition works does not impede the operations, maintenance, and security systems of Majuba Power Station.
2) The *Contractor* makes safe any voids and openings created as a result of the demolition works.
3) The *Contractor* removes the respective feed chutes, calming tunnels and impact station/idlers on the stack-out and overland conveyors and installs normal trough idlers.
4) Structural steel bases should be removed fully off the plinths.
5) The plinths and concrete bases on the natural ground should be uprooted and removed and the ground made good. This excludes plinths on concrete floors, i.e. plinths in the transfer and drive houses. This includes the plinth next to the station fence at the bin feed conveyor tail.
6) The *Contractor* conducts the removal of damaged, dismantled and demolished material in accordance to the Majuba Waste Management Work Instruction (ENV/GEN/WI/12)
7) The *Contractor* conducts the *works* in accordance with latest SANS, Construction Regulations and *Employer* Standards.
8) The *Contractor* provides an integrated schedule for the *works*.
9) The *Contractor* rehabilitates the sump next to the Bin Feed Conveyors Drive House and the sump next to the Assizing Complex.
10) The *Contractor* disposes off the old Bin Feed Conveyors Magnet House Structure and gantry that is currently located in the vicinity of the Bin Feed Conveyor Tail-End.

The *Contractor* designs, fabricates, supplies, and installs on affected areas the enclosures, walkways, guard/hand railing, stair casings, cat ladders, access/maintenance doors, crawl beams, lighting and plug points on the remaining buildings after the demolition works to allow for the operations and maintenance activities.

- The *Contractor* provides means to access the middle of the overland conveyors in the vicinity of the overland links feed sections.

6.6.2 Electrical

1) The *Contractor* disposes the old HVAC unit for Coal Stockyard Substation (HV)
2) The *Contractor* decommissions, removes and disposes off associated cables in the Coal Stockyard Substation cable tunnels as per attached electrical supply list
3) Install and commission four MV cables supplying the Tippler's 6.6kV electrical boards in the Tippler Substation. The cable is to be routed and buried from the coal stockyard substation, running along the route of the old bin-feed conveyor gantries and joined with the existing 4x cables at the tail-end of the old bin-feed conveyors. The *Contractor* is required to provide drawings of the new cable route – the route is approximately 550m in length (approximately 2500m of 185mm2, 3 Core, 6000V, XLPE, stranded copper, PVC sheathed, armoured cable will be required – cable code DXE03SCV). The cables will be free issued.

4) Cable to be buried 800m up to the tail end of the old bin-feed conveyors – excavations required

6.6.3 List of supplies that need to be decommissioned with the associated power cables.

1) 02EAB21
2) 02EAB22

01BHN03DA001	380V COAL TIPPLER BOARD 1 PANEL 03DA001	02EAB21GH100	TIPPLER INCLINE 21 CONVEYOR MAGNET SWITCHGEAR
01BHN08BA001	380V COAL TIPPLER BOARD 1 PANEL 08BA001	02EAB21AN001 - M01	TIPPLER INCLINE 21 CONV COUPLING COOLING FAN MOTOR
01BHN08CA001	380V COAL TIPPLER BOARD 1 PANEL 08CA001	02EAB21AN001 - M02	TIPPLER INCLINE 21 CONV COUPLING COOLING FAN MOTOR -M02
01BHN08DA001	380V COAL TIPPLER BOARD 1 PANEL 08DA001	02EAB21AP001 - M01	TIPPLER INCLINE 21 CONVEYOR COUPLING PUMP MOTOR
01BHN08EA001	380V COAL TIPPLER BOARD 1 PANEL 08EA001	02EAB21AP001 - M02	TIPPLER INCLINE 21 CONVEYOR COUPLING PUMP MOTOR -M02
03BCC05AA001	6,6KV COAL STOCKYARD BOARD 3 PANEL 05AA001	02EAB21AF100 - M01	TIPPLER INCLINE 21 CONVEYOR MOTOR
03BCC06AA001	6,6KV COAL STOCKYARD BOARD 3 PANEL 06AA001	02EAB21AF100 - M02	TIPPLER INCLINE 21 CONVEYOR MOTOR -M02

02BHN03DA002	380V COAL TIPPLER BOARD 2 PANEL 03DA002	02EAB22GH100	TIPPLER INCLINE 22 CONVEYOR MAGNET SWITCHGEAR
02BHN08BA001	380V COAL TIPPLER BOARD 2 PANEL 08BA001	02EAB22AN001 - M01	TIPPLER INCLINE 22 CONVEYOR COUPLING COOLING FAN MOTOR
02BHN08CA001	380V COAL TIPPLER BOARD 2 PANEL 08CA001	02EAB22AN001 - M02	TIPPLER INCLINE 22 CONVEYOR COUPLING COOLING FAN MOTOR -M02
02BHN08DA001	380V COAL TIPPLER BOARD 2 PANEL 08DA001	02EAB22AP001 - M01	TIPPLER INCLINE 22 CONVEYOR COUPLING PUMP MOTOR
02BHN08EA001	380V COAL TIPPLER BOARD 2 PANEL 08EA001	02EAB22AP001 - M02	TIPPLER INCLINE 22 CONVEYOR COUPLING PUMP MOTOR -M02
04BCC04AA001	6,6KV COAL STOCKYARD BOARD 4 PANEL 04AA001	02EAB22AF100 - M01	TIPPLER INCLINE 22 CONVEYOR MOTOR
04BCC05AA001	6,6KV COAL STOCKYARD BOARD 4 PANEL 05AA001	02EAB22AF100 - M02	TIPPLER INCLINE 22 CONVEYOR MOTOR -M02

1) 00EAC10

02BFB01AA002	COAL STOCKYARD 4000T SILO DISTRIBUTION BOARD PANEL 01AA002	00EAC10CL301 - N01	COAL STOCKYARD 4000T SILO FEEDER 10 BLOCK SHUTE DETECTOR
04BFN04EA001	380V COAL STOCKYARD BOARD 4 PANEL 04EA001	00EAC10AF100 - M01	UNDER 4000 T SILO FEEDER 10 MOTOR
04BFN05EA001	380V COAL STOCKYARD BOARD 4 PANEL 05EA001	00EAC10AS100 - M01	FEEDER BELT 10 POSITION ACTUATOR

1) 00EAC20

02BFB01AA003	COAL STOCKYARD 4000T SILO DISTRIBUTION BOARD PANEL 01AA003	00EAC20CL301 - N01	COAL STOCKYARD 4000T SILO FEEDER 20 BLOCK SHUTE DETECTOR
05BFN02EA001	380V COAL STOCKYARD	00EAC20AF100 -	UNDER 4000 T SILO FEEDER 20

01BCC06AA001	6,6KV COAL STOCKYARD BOARD 1 PANEL 06AA001	00EAC11AF100 - M01	COAL BIN FEED CONVEYOR 11 MOTOR
01BFB01AA002	COAL STOCKYARD BIN FEED DISTRIBUTION BOARD PANEL 01AA002	00EAC11CL301 - N01	COAL STOCKYARD BIN FEED CONVEYOR 11 BLOCK SHUTE DETECTOR
01BFN04GA006	380V COAL STOCKYARD BOARD 1 PANEL 04GA006	00EAC11DG001	PROPORTIONING GATE 100 POSITION CONTROL
01BFN06EA001	380V COAL STOCKYARD BOARD 1 PANEL 06EA001	00EAC11AT200 - M01	SURGE BIN 11 DUST EXTRACTION UNIT MOTOR
02BFN03CA001	380V COAL STOCKYARD BOARD 2 PANEL 03CA001	00EAC11CL001 - N01	SURGE BIN ULTRASONIC LEVEL CONTROL DETECTOR
02BFN03CA004	380V COAL STOCKYARD BOARD 2 PANEL 03CA004	00EAC11DG002	PROPORTIONING GATE 200 POSITION CONTROL
03BFN01AA016	COAL STOCKYARD TRANSFER HOUSE DIST BOARD PANEL 01AA016	00EAC11CL301 - N01	COAL STOCKYARD BIN FEED CONVEYOR 11 BLOCK SHUTE DETECTOR
04BFN04DA001	380V COAL STOCKYARD BOARD 4 PANEL 04DA001	00EAC11AT100	COAL BIN FEED CONVEYOR 11 MAGNETIC SEPARATOR
	BOARD 5 PANEL 02EA001	M01	MOTOR
05BFN02FA001	380V COAL STOCKYARD BOARD 5 PANEL 02FA001	00EAC20AF100 - R01	UNDER 4000 T SILO FEEDER 20 MOTOR THERMISTOR PROTECTION
05BFN03FA001	380V COAL STOCKYARD BOARD 5 PANEL 03FA001	00EAC20AS100 - M01	UNDER 4000 T SILO FEEDER 20 POSITION ACTUATOR MOTOR
08BFN03HA001	380V COAL STOCKYARD BOARD 8 PANEL 03HA001	00EAC20AB200 - Y01	UNDER 4000 T SILO FEEDER 20 CLAMSHELL GATE ACTUATOR

1) 00EAC11

04BFN05CA001	380V COAL STOCKYARD BOARD 4 PANEL 05CA001	00EAC11CG001	POSITIONING GATE POSITIVE
04BFN05CA002	380V COAL STOCKYARD BOARD 4 PANEL 05CA002	00EAC11CQ501	BIN FEED CONVEYOR 11 METAL DETECTOR
05BFN03CA001	380V COAL STOCKYARD BOARD 5 PANEL 03CA001	00EAC11CG002	POSITIONING GATE CONTROL
08BFN03CA001	380V COAL STOCKYARD BOARD 8 PANEL 03CA001	00EAC11AP100 -M01	COAL BIN FEED CONVEYOR 11 GEARBOX LUBE OIL PUMP
08BFN03FA001	380V COAL STOCKYARD BOARD 8 PANEL 03FA001	00EAC11AB100 -M01	SURGE & ASSIZING BIN SHUTE 11 PROP GATE ACTUATOR MOTOR 100
08BFN05FA001	380V COAL STOCKYARD BOARD 8 PANEL 05FA001	00EAC11DF001	SURGE BIN DUST EXTRACTOR UNIT CONTROL
08BFN05HA001	380V COAL STOCKYARD BOARD 8 PANEL 05HA001	00EAC11AB400 -M01	SURGE BIN 11 DISCHARGE CLAMSHELL ACTUATOR MOTOR 400
09BFN03BA001	380V COAL STOCKYARD BOARD 9 PANEL 03BA001	00EAC11AB200 -M01	SURGE & ASSIZING BIN SHUTE 11 PROP GATE ACTUATOR MOTOR 200

1) 00EAC21

01BFB01AA004	COAL STOCKYARD BIN FEED DISTRIBUTION BOARD PANEL 01AA004	00EAC21CL301 - N01	COAL STOCKYARD BIN FEED CONVEYOR 21 BLOCK SHUTE DETECTOR
01BFN05AA002	380V COAL STOCKYARD BOARD 1 PANEL 05AA002	00EAC21AS100 - M01	SURGE & ASSIZING BIN 21 HYDRAULIC POWER PACK
01BFN06CA001	380V COAL STOCKYARD	00EAC21CL001 -	SIZING BIN ULTRASONIC LEVEL

	BOARD 1 PANEL 06CA001	N01	CONTROL DETECTOR
02BFN04BA002	380V COAL STOCKYARD BOARD 2 PANEL 04BA002	00EAC21AT200 - M01	ASSIZING BIN 21 DUST EXTRACTION UNIT MOTOR
03BFN01AA017	COAL STOCKYARD TRANSFER HOUSE DIST BOARD PANEL 01AA017	00EAC21CL301 - N01	COAL STOCKYARD BIN FEED CONVEYOR 21 BLOCK SHUTE DETECTOR
05BFN02CA002	380V COAL STOCKYARD BOARD 5 PANEL 02CA002	00EAC21AT100	COAL BIN FEED CONVEYOR 21 MAGNETIC SEPERATOR
05BFN03CA005	380V COAL STOCKYARD BOARD 5 PANEL 03CA005	00EAC21CQ501	BIN FEED CONVEYOR 21 METAL DETECTOR
09BFN03CA001	380V COAL STOCKYARD BOARD 9 PANEL 03CA001	00EAC21AP100 - M01	COAL BIN FEED CONVEYOR 21 GEAR BOX LUBE OIL PUMP
09BFN03GA001	380V COAL STOCKYARD BOARD 9 PANEL 03GA001	00EAC21AB100 - M01	ASSIZING BIN 21 DISCHARGE CLAMSHELL ACTUATOR MOTOR 100
09BFN04BA001	380V COAL STOCKYARD BOARD 9 PANEL 04BA001	00EAC21AS100 - M01	SURGE & ASSIZING BIN 21 HYDRAULIC POWER PACK
09BFN05AA001	380V COAL STOCKYARD BOARD 9 PANEL 05AA001	00EAC21DF001	DUST EXTRACTOR CONTROLLER
02BCC06AA001	6,6KV COAL STOCKYARD BOARD 2 PANEL 06AA001	00EAC21AF100 - M01	COAL BIN FEED CONVEYOR 21 MOTOR

00EAC12

01BFB01AA003	COAL STOCKYARD BIN FEED DISTRIBUTION BOARD PANEL 01AA003	00EAC12CL301 - N01	COAL STOCKYARD SURGE BIN FEEDER 12 BLOCK SHUTE DETECTOR
01BFN05EA001	380V COAL STOCKYARD BOARD 1 PANEL 05EA001	00EAC12AF100 - M01	UNDER SURGE BIN FEEDER 12 MOTOR
08BFN02BA001	380V COAL STOCKYARD BOARD 8 PANEL 02BA001	00EAC12AE100 - M01	BELT FEEDER 12 SHUTTLE WINCH

00EAC22

01BFB01AA005	COAL STOCKYARD BIN FEED DISTRIBUTION BOARD PANEL 01AA005	00EAC22CL301 - N01	COAL STOCKYARD SURGE BIN FEEDER 22 BLOCK SHUTE DETECTOR
02BFN03EA001	380V COAL STOCKYARD BOARD 2 PANEL 03EA001	00EAC22AF100 - M01	UNDER ASSIZING BIN FEEDER 22 MOTOR
09BFN03EA001	380V COAL STOCKYARD BOARD 9 PANEL 03EA001	00EAC22AE100 - M01	BELT FEEDER 22 SHUTTLE WINCH

00EAC13

01BFN07AA001	380V COAL STOCKYARD BOARD 1 PANEL 08AA001	00EAC13AF100 - M01	OVERLAND LINK CONVEYOR 13
03BFN01AA013	COAL STOCKYARD TRANSFER HOUSE DIST BOARD PANEL 01AA013	00EAC13CL301 - N01	COAL STOCKYARD OVERLAND CONVEYOR 13 BLOCK SHUTE DETECTOR
08BFN06BA001	380V COAL STOCKYARD BOARD 8 PANEL 06BA001	00EAC13AE100 - M01	OVERLAND LINK CONVEYOR 13 MOVING HEAD WINCH
08BFN06CA001	380V COAL STOCKYARD BOARD 8 PANEL 06CA001	00EAC13AE200 - M01	OVERLAND LINK CONVEYOR 13 MOVING HEAD WINCH

00EAC30

02BFN05AA001	380V COAL STOCKYARD BOARD 2 PANEL 05AA001	00EAC30AF100 - M01	STACKER LINK CONVEYOR 30

6.6.4 Control and Instrumentation

The *Contractor* decommissions, removes, package and stores all instrumentation salvageable from the plant as per the following tables below.

Table 1:Assizing Bin Feed 00EAC11

Instrumentation KKS no.	Instrumentation description
07-00EAC11CG301	B/FD CONV 11 TAKE UP HIGH LVL SW
07-00EAC11CG302	B/FD CONV 11 TAKE UP LOW LVL SW
07-00EAC11CG303	PROPORT GATE 100 LMT SW
07-00EAC11CG305	PROPORT GATE 200 LMT SW
07-00EAC11CG307	CLAMSHELL GATE
07-00EAC11CG309	SURGE BIN RADIAL GATE OPN LMT SW
07-00EAC11CG310	SURGE BIN RADIAL GATE CLOSE LMT SW
07-00EAC11CG320	B/FD CONV BELT ALIGN
07-00EAC11CG320 -S01	B/FD CONV 11 BELT ALIGN & TEAR SW
07-00EAC11CG320 -S02	B/FD CONV 11 BELT ALIGN & TEAR SW
07-00EAC11CG320 -S03	B/FD CONV 11 BELT ALIGN & TEAR SW
07-00EAC11CG320 -S04	B/FD CONV 11 BELT ALIGNMNET & TEAR SW
07-00EAC11CG320 -S05	B/FD CONV 11 BELT ALIGNMNET & TEAR SW
07-00EAC11CL301	HIGH LEVEL DETECTOR
07-00EAC11CL301 -N01	CSY BIN FEED CONV 11 BLK SHUTE DETECTOR
07-00EAC11CL302	SURGE BIN HIGH HIGH LVL TILT SW
07-00EAC11CL310	CSY BLCKED CHUTE DET
07-00EAC11CS301	SPEED SW BIN BELT 11
07-00EAC11CT301	B/FD CONV 11 FLUID CPL OVERTEMPSW
07-00EAC11CG004	SURGE BIN POSN TX
07-00EAC11CL001	SURGE BIN ULTRASONIC LVL CTRL SENSOR
07-00EAC11CL001 -B01	SURGE BIN ULTRASONIC LVL CTRL SENSOR
07-00EAC11CL001 -N01	SURGE BIN ULTRASONIC LVL CTRL U
07-00EAC11CL301	(DECO)SURGE BIN LOW LOW LVL
07-00EAC11CL501	(DECO)SURGE BIN COAL LVL
07-00EAC11CL502	(DECO)SURGE BIN COAL LVL
07-00EAC11CL504	(DECO)SURGE BIN COAL LVL

Table 2: Surge Bin Feed 00EAC21

Instrumentation KKS no.	Instrumentation description
07-00EAC21CG301	B/FD CONV 21 TAKE UP HIGH LMT SW
07-00EAC21CG302	B/FD CONV 21 TAKE UP LOW LMT SW
07-00EAC21CG303	CLAMSHELL GATE "OPNED"

07-00EAC21CL001	ASSIZING BIN ULTRASONIC LVL CTRL SENSOR
07-00EAC21CL001 -N01	ASSIZING BIN ULTRASONIC LVL CTRL U
07-00EAC21GL501	ASSIZE BIN COAL LVL
07-00EAC21CP301	B/FD CONV12 L/OIL PRESS SW
07-00EAC21CQ001	B/FD CONV NO 21 METAL DET
07-00EAC21CQ001 -B01	BIN FEED CONVEYOR 21 METAL DETECTOR
07-00EAC21CQ002	B/FD CONV 21 METAL DET LEAD SPLICE DET
07-00EAC21CQ003	B/FD CONV 21 METAL DET TRAIL SPLICE DET
07-00EAC21CQ301	B/FD CONV 21 METAL DET
07-00EAC21CQ302	B/FD CONV 21 METAL DET LEAD SPLICE DET
07-00EAC21CQ303	B/FD CONV 21 METAL DET TRAIL SPLICE DET
07-00EAC21CQ501	B/FD CONV 21 METAL DET
07-00EAC21CS301	B/FD CONV TAIL END SPEED
07-00EAC21CS302	B/FD CONV BELT SPEED
07-00EAC21CT001	CSY BIN FEED CONVEY 21 MTR WINDING TEMP
07-00EAC21CT301	B/FD CONV 21 FLUID CPL OVER TEMPSW
07-00EAC21CW501	ASSIZE SYS LOAD CELL
07-00EAC21CW502	ASSIZE SYS LOAD CELL
07-00EAC21CW503	ASSIZE SYS LOAD CELL
07-00EAC21CW504	ASSIZE SYS LOAD CELL

Table 3: Surge Feeder 00EAC12

Instrumentation KKS no.	Instrumentation description
07-00EAC12CG301	SURGE BIN BELT 12 SHUTTLE POSIT LIMIT SW
07-00EAC12CG302	SURGE BIN BELT12 SHUTTLE POSN LMT SW 2
07-00EAC12CG303	SURGE BIN BELT12 SHUTTLE POSN LMT SW
07-00EAC12CG304	SURGE BIN BELT12 SHUTTLE OV SW 1
07-00EAC12CG305	SURGE BIN BELT12 SHUTTLE OV SW 2
07-00EAC12CG306	O/L CONVEYOR 12 TAKE UP LOW LIMIT SWITCH
07-00EAC12CG320	CSY OVERLAND CONVEYOR 12 BELT ALIGNMENT
07-00EAC12CG320 -S01	CONV12 BELT ALIGN & TEAR SW
07-00EAC12CG320 -S02	CONV12 BELT ALIGN & TEAR SW
07-00EAC12CG320 -S03	CONV12 BELT ALIGN & TEAR SW
07-00EAC12CG320 -S04	CONV12 BELT ALIGN & TEAR SW
07-00EAC12CG340	CSY SURGE BIN BELT 12 EMERGENCY STOP 1
07-00EAC12CG341	CSY SURGE BIN BELT 12 EMERGENCY STOP 2
07-00EAC12CG342	SURGE BIN BELT 12 SHUTTLE WINCH E-STOP
07-00EAC12CL301	CSY BIN F/BELT 12 SURGE LEVEL SWITCH
07-00EAC12CL301 -N01	CSY SURGE BIN FDR 12 BLK SHUTE DETECTOR

07-00EAC12CL302	CSY BIN F/BELT 12 SURGE LEVEL SWITCH
07-00EAC12CL310	CSY BLCKED CHUTE SW

Table 4: Assizing Feeder 00EAC22

Instrumentation KKS no.	Instrumentation description
07-00EAC22CG301	SURGE BIN BELT 22 SHUTTLE POSN LMT SW
07-00EAC22CG302	SURGE BIN BELT 22 SHUTTLE POSN LMT SW
07-00EAC22CG303	SURGE BIN BELT 22 SHUTTEL POSN LMT SW
07-00EAC22CG304	SURGE BIN BELT 22 SHUTTLE OV SW 1
07-00EAC22CG305	SURGE BIN BELT 22 SHUTTLE OV SW 2
07-00EAC22CG320	CSY SURGE BIN CONVEYOR BELT ALIGNMENT
07-00EAC22CG320 -S01	CONV 22 BELT ALIGN & TEAR SW
07-00EAC22CG320 -S02	CONV 22 BELT ALIGN & TEAR SW
07-00EAC22CG320 -S03	CONV 22 BELT ALIGN & TEAR SW
07-00EAC22CG340	SHUTTLE CONV 22 EMERG STOP 1
07-00EAC22CG341	SHUTTLE CONV 22 EMERG STOP 2
07-00EAC22CG342	SHUTTLE CONV 22 WINCH EMERGENCY STOP
07-00EAC22CG350	SHUTTLE CONV 22 TRIP WIRE
07-00EAC22CG350 -S01	SHUTTLE CONV 22 TRIP WIRE SW 1
07-00EAC22CG350 -S02	SHUTTLE CONV 22 TRIP WIRE SW 2
07-00EAC22CL301	CSY ASSIZING BIN FEEDER 22 LEVEL SWITCH
07-00EAC22CL301 -N01	CSY SURGE BIN FEED 22 BLOCK CHUTE DETECT

Table 5: Overland Link 00EAC13

Instrumentation KKS no.	Instrumentation description
07-00EAC13CG301	O/L LINK CONV13 M/HD POSN LMT SW 1
07-00EAC13CG302	O/L LINK CONV13 M/HD POSN LMT SW 2
07-00EAC13CG303	O/L LINK CONV13 M/HD OV SW 1
07-00EAC13CG304	O/L LINK CONV13 M/HD OV SW 2
07-00EAC13CG305	O/L LINK CONV13 TAKE UP HIGH LMT SW
07-00EAC13CG306	O/L LINK CONV13 TAKE UP LOW LMT SW
07-00EAC13CG307	O/L LINK CONV13 FLUID CLG LMT SW
07-00EAC13CL301 -N01	CSY OVERLAND CONV 13 BLK SHUTE DETECTOR
07-00EAC13CT301	O/L LINK CONV13 FLUID CPL OVERTEMPSW
07-00EAC13CL301	O/L LINK CONV13 LVL GUAGE (NUCLIDE)

Table 6: Overland Link 00EAC23

Instrumentation KKS no.	Instrumentation description
07-00EAC23CG301	O/L LINK CONV 23 M/HD POSN LMT SW 1
07-00EAC23CG302	O/L LINK CONV 23 M/HD POSN LMT SW 2

07-00EAC23CG303	O/L LINK CONV 23 M/HD OV LVL SW 1
07-00EAC23CG304	O/L LINK CONV 23 M/HD OVERTRAVEL LVL SW
07-00EAC23CG305	O/L LINK CONV 23 TAKE UP HIGH LMT SW
07-00EAC23CG306	O/L LINK CONV 23 TAKE UP LOW LMT SW
07-00EAC23CG307	O/L LINK CONV 23 FLUID CPL LMT SW
07-00EAC23CL301	O/L LINK CONV FLUID COUPLING LIMT SWITCH
07-00EAC23CL301 -N01	CSY OVERLND LNK CONV23 BLK SHUTE DETECT
07-00EAC23CT301	O/L LINK CONV 23 FLUID CPL OVERTEMP SW

Table 7: Stacker Link 00EAC30

Instrumentation KKS no.	Instrumentation description
07-00EAC30CG301	STACKER LINK CONVEY 30 TAKE UP HI LMT SW
07-00EAC30CG302	STACKER LINK CONV 30 TAKE UP LOW LMT SW
07-00EAC30CG303	STACKER LINK CONVEY 30 FLUID CPL LMT SW
07-00EAC30CT301	STACKR LINK CONV 30 FLUID CPL OVERTEMP SW
07-00EAC30CG301	STACKER LINK CONVEY 30 TAKE UP HI LMT SW
07-00EAC30CL301	STACKER LINK CONVEYOR 30 LEVEL GAUGE

1. Instrumentation salvaged from the plant shall be cleaned and booked back to stores.
2. The *Contractor* decommissions, removes and book back to stores all salvageable C&I cables including UVG2, UVG4 and UVG8 cables
3. The *Contractor* decommissions, removes, and disposes all damaged C&I cables in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.
4. The *Contractor* decommissions, removes, and stores all salvageable junction boxes and panels from the plant as per the table below.

Table 8: Junction Boxes/Panels

Junction Box/Panel KKS no,	Junction Box/Panel Description
07-00EAC11GA201	B/FD CONV 11 TAIL END J/B
07-00EAC11GA202	B/FD CONV 11 DRV HSE J/B
07-00EAC11GA203	PROPORT GATE 100 J/B
07-00EAC11GA204	PROPORT GATE 200 J/B
07-00EAC11GA205	SURGE BIN J/B
07-00EAC11GB001	B/FD CONV 11 TAKE UP PRATL BX
07-00EAC11GB131	PROPORT GATE 100 LMT SW PRATL BX
07-00EAC11GB132	PROPORT GATE 200 LMT SW PRATL BX
07-00EAC11GB134	SURGE BIN LMT SW PRATL BX
07-00EAC11GH100	CSY BIN FEED 11 CONV MAGNETIC SEP CUB
07-00EAC11GH111	B/FD CONV 11 MAG SEPARATOR CTRL PNL
07-00EAC11GA205	SURGE BIN J/B
07-00EAC11GB001	B/FD CONV 11 TAKE UP PRATL BX
07-00EAC11GB131	PROPORT GATE 100 LMT SW PRATL BX

07-00EAC11GB132	PROPORT GATE 200 LMT SW PRATL BX
07-00EAC11GB134	SURGE BIN LMT SW PRATL BX
07-00EAC11GH100	CSY BIN FEED 11 CONV MAGNETIC SEP CUB
07-00EAC11GH111	B/FD CONV 11 MAG SEPARATOR CTRL PNL
07-00EAC12GA103	SHUTTLE CONVEYOR12 JUNCTION BOX 103
07-00EAC12GA104	SHUTTLE CONVEYOR12 JUNCTION BOX 104
07-00EAC12GA140	SURGE BIN BELT12 CTRL J/B 1
07-00EAC12GA141	SURGE BIN BELT12 CTRL J/B 2
07-00EAC12GA142	SURGE BIN BELT12 PWR J/B 1
07-00EAC12GA143	SURGE BIN BELT12 PWR J/B 2
07-00EAC12GA144	SURGE BIN BELT12 LMT SW J/B
07-00EAC12GA201	SURGE BIN BELT12 J/B
07-00EAC12GB001	O/L CONV12 TAKE UP PRATL BX
07-00EAC12GH001	ASSIZING BIN BELT12 VAR SPEED PNL
07-00EAC13GA101	O/L LINK CONV13 DRV END J/B
07-00EAC13GB001	O/L LINK CONV13 TAKE UP PRATL BX
07-00EAC21GA101	B/FD CONV 21 TAIL END J/B 2
07-00EAC21GA102	B/FD CONV 21 DRV HSE J/B 1
07-00EAC21GA114	MASS METER ASSIZING BIN
07-00EAC21GA132	ASSIZING BIN M/M J/B 1
07-00EAC21GA133	ASSIZING BIN M/M J/B 2
07-00EAC21GA201	ASSIZING BIN PROPORTION GATE ACT 200 J/
07-00EAC21GA202	ASSIZING BIN J/B
07-00EAC21GA203	SURGE BIN J/B
07-00EAC21GB001	B/FD CONV 21 TAKE UP PRATL BX
07-00EAC21GB131	ASSIZING BIN LMT SW PRATL BX
07-00EAC21GH001	ASSIZINGHYD P/P LOCAL STARTER PNL
07-00EAC21GH100	CSY BIN FEED 21 CONV MAGNETIC SEP CUB
07-00EAC21GH111	B/FD CONV 21 MAG SEPARATOR CTRL PNL
07-00EAC21GL501	ASSIZE BIN COAL LVL
07-00EAC23GA101	O/L LINK CONV 23 DRV END J/B
07-00EAC23GB001	O/L LINK CONV 23 TAKE UP PRATL BX
07-00EAC30GA101	STACKER LINK CONVEYOR 30 DRIVE END J/B
07-00EAC30GB001	STACKER LINK CONV 30 TAKE UP PRATLEY BOX

5. The *Contractor* to clean all salvaged junction boxes and panels and book them back to stores.
6. The *Contractor* decommissions, removes, and store the conveyor protection Head End Control Units (HECU) and pull keys remaining located in the following areas:
    - Bin feeder conveyor (00EAC11): one (1) HECU
    - Surge and Assizing feeder (00EAC12 and 00EAC22): two (2) HECUs

- Overland and Stacker link (00EAC13, 00EAC21 and 00EAC30): three (3) HECUs

7. The *Contractor* to decommission, remove, and store the fire detection equipment as listed below.
    - 2 Fire Suppression Control panel on the Assizing Complex
    - The following items located on the two mechanical deluge systems between the Bin feeder and Assizing complex.
        - Solenoid (2)
        - Pressures switches (2)
        - Pressure gauges (4)

8. The *Contractor* decommissions, removes, and disposes all damaged Fire Detection Linear Heat Detection Cable in accordance with the Waste Management Standard (ENV/GEN/WI/12) – Electronic waste procedure.

9. The *Contractor* to compile a list of all C&I Equipment removed from the demolition areas specified below:
    - Bin feeder conveyor (00EAC11 and 00EAC21)
    - Surge and Assizing feeder (00EAC12 and 00EAC22)
    - Overland and Stacker link (00EAC13, 00EAC21 and 00EAC30)

6.6.5 Fire Reticulation

1) The *Contractor* re-routes the fire reticulation piping as specified below.

Figure 2: Existing Fire reticulation to be re-routed at Sizing Complex.

The pipeline (0 0SGA91) that supply fire water to sizing complex to be re-routed to run on the same (X & Y co-ordinates) and Z co-ordinate to be changed to 0M level. The pipeline is to run on the pipe supports/plinths.

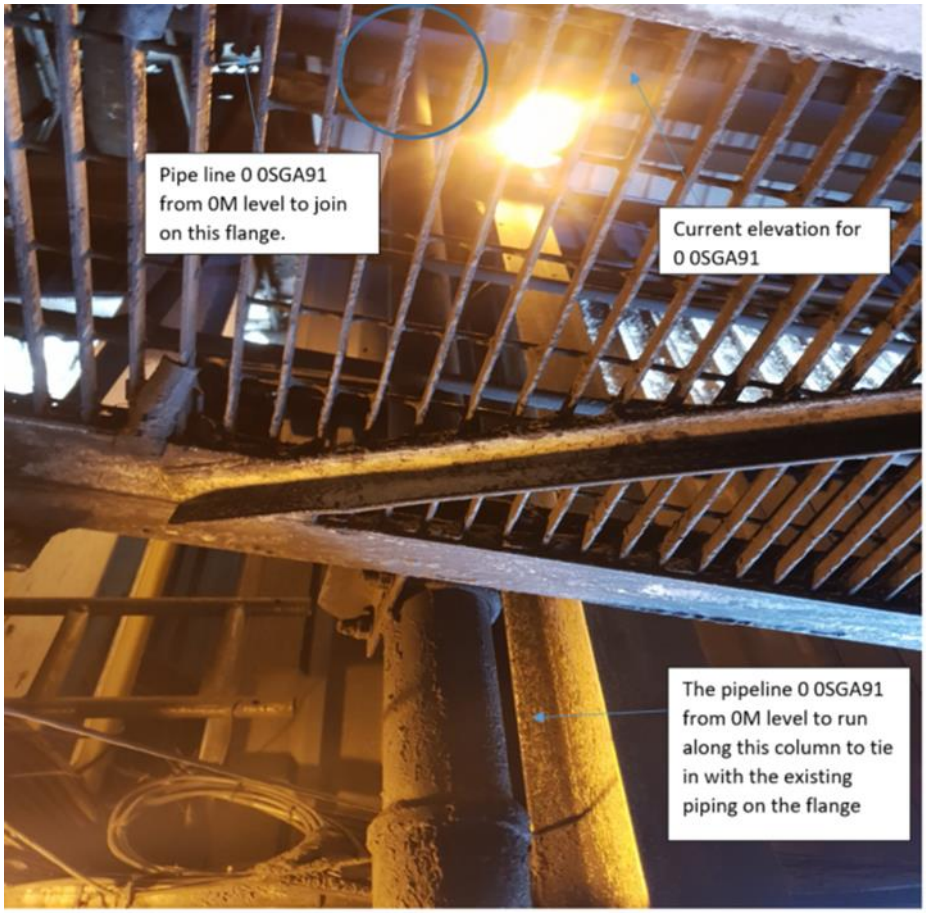

Figure 2: Existing Fire reticulation to be re-routed at Sizing Complex.

The pipeline (0 0SGA91) to change elevation from 0m level to connect to the current pipe elevation.

2) The *Contractor* demolishes the fire reticulation piping as specified below.

6.6.6 Existing Fire reticulation to be re-routed at Sizing Complex

1) The pipeline (0 0SGA91) that supply fire water to sizing complex to be re-routed to run on the same (X & Y co-ordinates) and Z co-ordinate to be changed to 0M level. The pipeline is to run on the pipe supports/plinths.

Figure 3: Existing Fire reticulation to be re-routed at Sizing Complex.

The pipeline (0 0SGA91) to change elevation from 0m level to connect to the current pipe elevation.

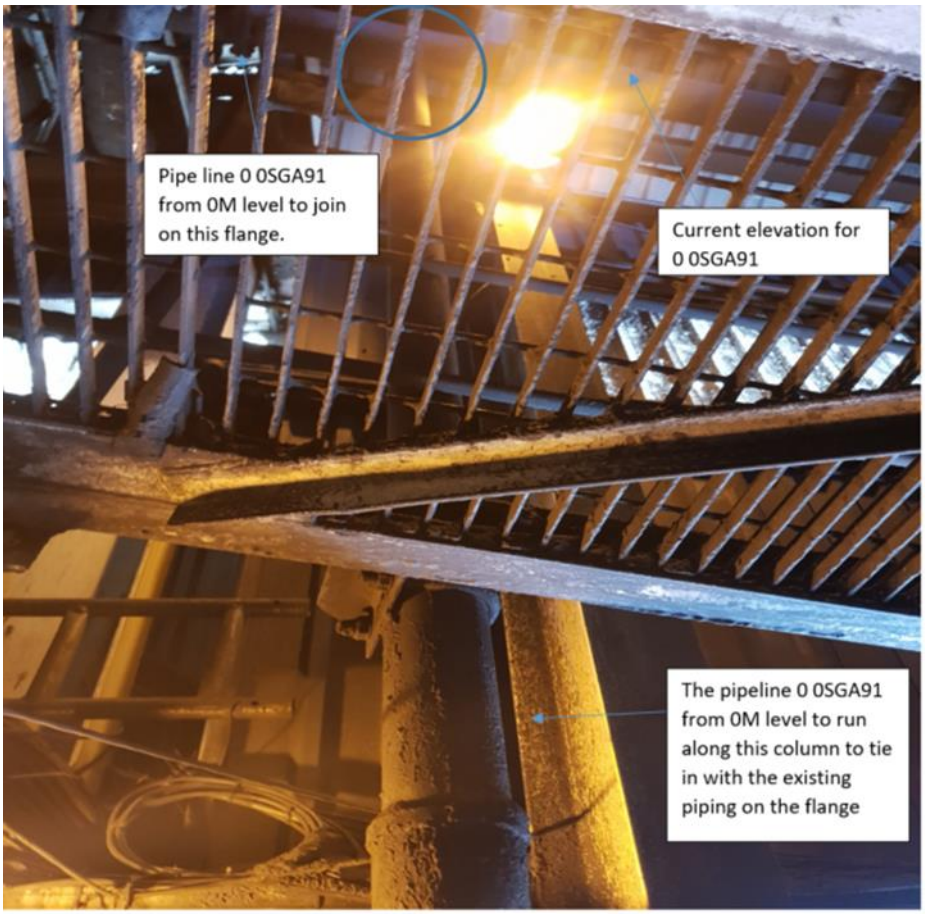

Figure 4: Existing Fire reticulation to be re-routed at Sizing Complex.

The *Contractor* demolishes the fire reticulation piping as specified below.

Figure 5: Existing Fire reticulation at been feeder to be demolished.

6.6.7 Existing Fire reticulation at been feeder to be demolished.

Isolation Valve (0 0SGA95 AA501) on the line that supply fire water to been feeder to be isolated, blank flange to be installed and the piping from the highlighted valve (0 0SGA95 AA501) downstream to be demolished.

After the *Contractor* has re-routed and demolished the fire pipeline as specified on this technical specification. The *Contractor* shall pressure test the re-routed piping as ASME B31.3 Power Piping Standard and the re-routed piping shall be commissioned as per 240-56356376 - Site commissioning for low pressure services.

When the pressure tests are done the following shall apply.

1. All pressure tests shall be conducted as per ASME B31.3.
2. Pressure test procedure shall be submitted to and approved by *Employer* before pressure test can commence. Pressure test procedures shall also be included in the data book.
3. Two pressure gauges shall be used for the pressure test.
4. All pressure gauges shall have valid calibration certificates prepared by a SANAS accredited pressure laboratory for all locally manufactured items. The maximum validity of the calibration certificates shall be 6 months.
5. Proper venting shall take place and all air pockets shall be vented. Method statement shall be provided.
6. The pressure inside the equipment under test shall be increased to a value of the specified test pressure as defined by the ASME B31.3 code **Error! Reference source not found.**. Thereafter, the pressure shall be increased in steps of approximately 10 % per minute of the specified test pressure until the full test pressure is reached. The piping system shall be held at the test pressure for a period of at least 30 min.
7. After the test has been completed a pressure test certificate shall be issued which shall be included in the data book.

6.7 TEMPORARY WORKS

The *Contractor* designs all temporary *works* necessary to execute the *works* in accordance with the applicable codes and standards, as stated in section 1.2.

The *Contractor's* appointed ECSA professionally registered structural engineer:

a) Reviews and approves (by signature) the designs and drawings of all temporary works and additional supports and method statements produced by the *Contractor*; and

b) Supervises, inspects and approves the *works* as per such.

All temporary works designs where supported from the existing structure are submitted to the *Project Manager* for review and acceptance, to prove that the members of the existing structure can withstand the induced load. The *Contractor* takes note that this is essential to enable reuse of the existing structure. The *Contractor* therefore submit all design calculations, in a design report which includes, but is not limited to, all inspection reports, survey data, structural analysis models, assumptions, drawings/sketches, rigging studies etc.

The *Contractor* also provides, as a minimum, the following to the *Project Manager* for review and acceptance before conducting any *works*:

- Comprehensive method statements detailing the demolition of the damaged infrastructure, taking into consideration access restrictions and safety requirements
- Quality Control Plans/ Inspection and Test plans.
- Rigging studies and design calculations where applicable (as detailed above).
- Where any repairs are required, Welding specification procedure and NDT procedure, which must align to the Standard for Welding Requirements on Eskom Plant (240-106628253)

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

6.8 SALVAGE LIST

6.8.1 Bin Feeder Conveyers (00EAC11 AND 00EAC21)

1. All pulleys and pulley bearings
2. All conveyor protections
3. C&I instrumentation
4. Idler frames (trough and return)
5. Magnetic separators
6. Mass meters
7. Fluid couplings
8. Fire detection control panels
9. Metal detectors
10. All corrugated iron sheeting

6.8.2 Assizing Complex

1. All pulleys and pulley bearings
2. All conveyor protections
3. C&I instrumentation
4. Motor and all VSD equipment
5. Compressor and air receiver
6. Air cannons
7. Fire detection control panels
8. All corrugated iron sheeting

6.8.3 Surge and Assizing feeder (00EAC12 and 00EAC22)

1. All pulleys and pulley bearings
2. All conveyor protections
3. C&I instrumentation

6.8.4 Overland and stacker link (00EAC13, 00EAC21 and 00EAC30)

1. Complete drive (motor, gearbox, coupling and base)
2. All pulleys and pulley bearings
3. All conveyor protections
4. C&I instrumentation
5. List of drawings

6.9 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
0-66/95088	6	Ash and Coal Handling Conveyor Layout
0-66/18377	3	Stockyard Coal Handling Bin Feed Conveyer Head Chute Liners
0-66/18377	3	Stockyard Coal Handling Assizing Complex
0-66/18383		Stockyard Coal Handling Assizing Complex Assizing Bin Details
0-66/18384	3	Stockyard Coal Handling Assizing Complex Assizing Bin Details
0-66/18385	3	Stockyard Coal Handling Assizing Complex Assizing Bin Liners
0-66/18386	4	Stockyard Coal Handling Assizing Complex Surge Bin
0-66/18387	4	Stockyard Coal Handling Assizing Complex Surge Bin Details
0-66/18388	1	Stockyard Coal Handling Assizing Complex Surge Bin Liners
0-66/18390	1	Assizing Complex Bin Discharge Chute Liners
0-66/18392	1	Stockyard Coal Handling Assizing Complex Under Surge Bin Shuttle Conveyer Details
0-66/18393	0	Stockyard Coal Handling Assizing Complex Under Assize & Surge Bins Shuttles Head Chute
0-66/18394	1	Stockyard Coal Handling Assizing Complex Under Assize & Surge Bins Shuttles Head Chute Liners
0-66/18408	2	Stockyard Coal Handling Assizing Complex General Arrangement 02UEF01
0-66/18410	1	Stockyard Coal Handling Assizing Complex General Arrangement 02 UEF01 (Stage 2 Phase 1)
0-66/19227	0A	Stockyard Coal Handling Assizing Complex Load-Out Chute Liners
0-66/21004	2	Stockyard Coal Handling Assizing Complex Shuttle Conveyers Shuttle Travel Details
0.66/100425		Site Layout (Majuba Power Station)
0.66/3305	1	6,6kV Coal Stockyard Board 1 Cabling Diagram
0.66/3306	2	6,6kV Coal Stockyard Board 2 Cabling Diagram

0.66/39497	1	6,6kV Coal Stockyard Board 3 Cabling Diagram
0.66/3305	1	6,6kV Coal Stockyard Board 1
0.66/39497	1	6,6kV Coal Stockyard Board 3
0.66/39498	0	6,6kV Coal Stockyard Board 4 Cabling Diagram

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

Document reference	Title	No of pages
	This cover page	1
C4	Site Information	2
	Total number of pages	

PART 4: SITE INFORMATION

Core clause 11.2(16) states

“Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.”

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

1. General description

The Site of the *works* is on the farms Roodekoppies 67HS and Witkoppies 81HS approximately 15 km south-west of Amersfoort on the road number 979 (now de-proclaimed) from Amersfoort to Beechwick, in Mpumalanga.

2. Road Access

The *Contractor* is advised of a surfaced link road linking Routes P97-1 with P26-1 and passing just north of the Majuba rail terminal.

From **Standerton**, take the national route R23 (P4-6) to Perdekop, the P97-1 towards Amersfoort, turning off right onto the link road 12 km before Amersfoort.

From **Volksrust,** travel north along the P26-1 towards Amersfoort, turning left onto the link road 17.5 km before Amersfoort.

From **Amersfoort**, take the Morgenzon road west of Amersfoort, turning south west onto the P97-1 towards Perdekop, then turning left onto the link road 12 km from Amersfoort.

3. Existing buildings, structures, and plant & machinery on the Site

At Majuba Power Station there is an existing tippler plant where coal is received from various sources via road and rail. Coal is received via rail 24 hours/day and is offloaded through the tippler plant.

The tippler plant infrastructure is situated north-east of the coal stockyard area and east from the security entrance. The current tippler control room is situated on the northern side of the tippler plant with the takeout conveyor system from the tippler feeding coal in a southerly direction to the coal stockyard/station. The Assizing complex is situated approximately 600m south from the tippler plant, adjacent to the coal stockyard. Coal is either transferred to the coal stockyard or *Employer*'s Majuba Power Station from this plant.

The *Contractor* shall isolate the area of works through barricading the site for the *Works* which will be performed in a barricaded area and all access to and from the area will be controlled by the *Contractor*.

It will be the responsibility of the *Contractor* to liaise with Transnet and the *Employer* to plan the outage of the area where work will be performed when required.

4. Subsoil information

It is necessary to assess the ground before digging. There are no specific drawings demarcating the areas that have been worked on.

5. Hidden services

General layout above ground as shown on drawings. The *Contractor* notes that there are underground hidden services and structures.

The *Contractor* performs his own survey to determine the location of hidden services and underground structures prior to excavations.

Contractor notes that excavation permits are applicable prior to any excavation.

6. Other reports and publicly available information

Other reports could be made available to the *Contractor* upon request depending on availability of information. It is the *Contractor's* responsibility to source the publicly available information.