



NEC3 Term Service Contract (TSC3)

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

and

for **OIL SPILL CLEANUP AND REMEDIATION SERVICES
FOR MAJUBA RAIL**

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CONTRACT No. [Insert at award stage]

PART C1: AGREEMENTS & CONTRACT DATA

Contents:	No of pages
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C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X19: Task Order
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract April 2013 ¹ (TSC3)	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state-owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
	Represented by:	
	Tel No.	
	Fax No.	
	e-mail	
10.1	The <i>Service Manager</i> is (name):	Marcel Meso
	Address	Private Bag 19001, Volksrust, 2470
	Tel	036 342 3031
	e-mail	MesoM@eskom.co.za
11.2(2)	The Affected Property is	Uitgezoght
11.2(13)	The <i>service</i> is	Oil Spill Clean-up and Remediation Services for Majuba Rail
11.2(14)	The following matters will be included	<ul style="list-style-type: none"> •Labour strike •Delay in supply of material

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

	in the Risk Register	<ul style="list-style-type: none"> •Normal construction hazards working with machinery •Working at heights •Hazardous gas •Electrocution •Inadequate ventilation or ventilation failure •Power supply interruptions or failure •Fire and smoke •Flooding from aquifer •Flooding from surface source •Steep, rocky, unstable and slippery ground •Normal construction hazards for concrete works COVID 19 Pandemic
11.2(15)	The Service Information is in	Part C3- Service Information and all documents and drawings to which it refers.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	seven (7) calendar days
2	The Contractor's main responsibilities	Data required by this section of the core clauses is also provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data
21.1	The <i>Contractor</i> submits a first plan for acceptance within	[2] weeks of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	03 October 2022
30.1	The <i>service period</i> is	2 months
4	Testing and defects	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
5	Payment	
50.1	The <i>assessment interval</i> is	The assessment interval is one (1) month. This will be done on the 20th of each month or on the Friday before if the 20th falls on a weekend.
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	14 days following the assessment, and it is made by electronic transfer.
51.4	The <i>interest rate</i> is	0%(zero percent) above the publicly quoted prime rate of interest (calculated on a 365-day year) charged by Standard Bank of South Africa Limited, from time to time, as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove.

6	Compensation events	Applicable as per core clause 6 in NEC3 Term Service Contract April 2013 ² (TSC3)
7	Use of Equipment Plant and Materials	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	1. None.
9	Termination	Applicable as per core clause 9 in NEC3 Term Service Contract April 2013 ³ (TSC3)
10	Data for main Option clause	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	2 Weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i>	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 <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	arbitration
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg, South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
	- if the arbitration procedure does not state who selects an arbitrator, is	
12	Data for secondary Option	

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

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.
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	R1 000 000 (one million Rand) per incident but unlimited during the service period
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	The greater of <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	<p>The total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <ul style="list-style-type: none"> • Defects due to his design, plan and specification, • Defects due to manufacture and fabrication outside the Affected Property, • loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), • death of or injury to a person and • Infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	Two (02) months after the end of the <i>service period</i>.
X19	Task Order	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	7 days of receiving the Task Order
Z	The <i>additional conditions of contract</i> are	Z1 to Z14 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 *Service 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 *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service 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 Service.
- 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 P4 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 *Service 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 Affected Property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Service 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 *Service Manager* 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 *service*. 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 Affected Property;
 - 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 the *service*; and
 - undertakes, in and about the execution of the *service*, 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 *service*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.3 Failure by the *Contractor* and his sub-contractors to adhere to the Eskom Life Saving Rules, shall result in the offender/s being immediately removed from the Affected Property. The *Contractors* supervisor/s shall also be held accountable for his subordinates not adhering to any or all the Eskom Life Savings Rules, which at the discretion of the *Service Manager* may request the supervisor/s removal from the Affected Property or disciplinary action. The Contractor shall further be penalised **R10 000.00** per transgression of the Life Saving Rules. The *Contractor* shall not be allowed to influence the decision of the *Service Manager* and the decision taken by the *Service Manager* shall be final.

Further to the above, the Contractor shall also be penalised for the Contractor and /or his

sub-contractors not adhering to safe working standards and conditions as set out in the relevant acts, regulations, policies and procedures. The penalty shall be **R10 000.00**. Repeat offences shall result in the transgressors being removed from site immediately.

- Z6.3 The Service Manager may impose penalties on the *Contractor* for failure to comply with applicable Environmental Management Programme (EMP) or Acts and Regulations which govern the execution of the *services*.

The penalties shall be as follows:

First offence: R 5 000
Second Offence: R 7 000
Further Offence: Penalty increased by R10 000.

The *Contractor* shall not be allowed to influence the decision of the *Service Manager* and the decision taken by the *Service Manager* shall be final.

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 *Service 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 Service 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.
- Z7.4 **Invoices must be made out to:**
Eskom Holdings SOC Limited
Group Capital Division
P. O. Box 1091
Johannesburg
2000.
Attention: Accounts payable.
- Z7.5 **Invoicing format and Process:**

- Invoice addressed to Eskom Holdings SOC Limited
- Invoice should read 'Tax Invoice'
- Company VAT registration number
- Eskom VAT Number 4740101508
- Invoice Number
- Purchase Order Number
- Supplier Name and Address
- VAT to be indicated separately
- Order numbers to be invoiced separately
- Invoices to be delivered not later than last day of month of assessment
- Invoices shall be delivered by the *Contractor* to the following email address:
invoicessgrpcapitalOTH@eskom.co.za

Invoice date to be same month (not later than the last day of the same month) of assessment. Incorrect claims (invoices) should be cancelled with a credit note referring to the incorrect invoice and issue a new invoice.

Z8 Notifying compensation events

Z8.1 Delete the last paragraph of core clause 61.3 and replace with:

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices.

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 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

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 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 Subcontractors or the Subcontractor's employees,

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

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

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

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

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

Z11.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or

remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

Z11.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.

Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z 12 .1 Replace core clause 83 with the following:

Insurance cover 83

- 83.1 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.
- 83.2 The *Contractor* provides the insurances stated in the Insurance Table A from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the <i>Contractor</i> to the <i>Employer's</i> property	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service	<u>Loss of or damage to property</u> The replacement cost <u>Bodily injury to or death of a person</u> The amount required by the applicable law.
Liability for death of or bodily	The amount required by the applicable law

injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	
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Z 12.2 Replace core clause 86 with the following:

Insurance by 86
the *Employer*

86.1 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 limit of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 44 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 44 of 1999, or any replacement section dealing with the same subject matter.

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

Z14 Asbestos

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

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
SANAS	means the South African National Accreditation System.
TWA	means the average exposure, within a given workplace, to airborne asbestos fibres, normalized to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z14.3 The *Employer* manages asbestos and ACM according to the Standard.

Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Z15 Supplier Development Localisation & Industrialisation [SDL&I].

Refer to Tender Data and invitation letter for SDL& I requirements. 2.5% SDL& I retention will be withheld. The retention money will be released once the SDL& I commitments have been achieved at the end of the contract period. However, in the event that the *Contractor* fails to fulfil its SDL& I obligations, the portion not met would be quantified and withheld from the final payment. The *Contractor* provides the *Service Manager*, on a monthly basis with a statement, using the *Employer's* template, indicating the supplier and the amount paid to Exempted Micro Enterprises (EME) and Qualifying Small Enterprises (QSE) organisations or suppliers. A Progress report as part of the reporting system will be required. The *Contractor* will be required to provide an explanation and action plan should he deviate from his obligations.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key people are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	
A	Priced contract with price list	
11.2(12)	The <i>price list</i> is in	
11.2(19)	The tendered total of the Prices is	

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:

Title of the Contract

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

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

Options A	The offered total of the Prices exclusive of VAT is	
	Sub total	
	Value Added Tax @ 15% is	
	The offered total of the amount due inclusive of VAT is ¹	
	(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:**

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

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: Service 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 and signed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

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

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

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

	For the tenderer:	For the Employer
Signature	_____	_____
Name	_____	_____
Capacity	_____	_____
On behalf of	_____	_____
Name & signature of witness	_____	_____
Date	_____	_____



(Eskom Holdings SOC Limited Reg No 2002/015527/30)

CONTRACT NUMBER :.....

FOR

OIL SPILL CLEANUP AND REMEDIATION SERVICES FOR MAJUBA RAIL.

PROJECT DOCUMENT

(insert date)

ISSUED BY:

PREPARED BY:

ESKOM HOLDING SOC LTD
GROUP CAPITAL DEPARTMENT
MEGAWATT PARK
MAXWELL DRIVE
SUNNINGHILL
SANDTON

Name and Surname:

TEL :

FAX :

NAME OF TENDERER:

ADDRESS:.....

TEL:..... FAX:

PART 2: PRICING DATA
TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i>	[•]

C2.1 Pricing assumptions: Option A

1. The *conditions of contract*

1.1. How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract, June 2005 (TSC3) core clauses and Option A states:

Identified and defined terms	11	
	11.2	(12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.
		(17) The Price for Services Provided to Date is the total of <ul style="list-style-type: none">• the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and• where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the <i>Contractor</i> has completed by the rate.
		(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both.

1.2. Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the *Price List*. The *Price List* is only a pricing document.

1.3. Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

1.4. Preparing the *price list*

It will be assumed that the tendering contractor has read Pages 14, 15 and 73 of the TSC3 Guidance Notes before preparing the *price list*. Items in the price list may have been inserted by the Employer and the tendering contractor should insert any additional items which he considers necessary. Whichever party provides the items in the price list the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

- 1.4.1. As the *Contractor* has an obligation to correct Defects (core clauses 42.1) and there is no compensation event for this unless the Defects was due to an Employer's risk, the lump sum Prices and rates must also include for the correction of Defects.
- 1.4.2. If the *Contractor* has decided not to identify a particular item in the price list at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and

rates in the price list in order to fulfil the obligation to complete the service for the tendered total of the Prices.

- 1.4.3. There is no adjustment to lump sum prices in the price list if the amount, or quantity, of work within that lump sum item of service 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. See Clause 60.1
- 1.4.4. Hence the Prices and rates tendered by the *Contractor* in the price list are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as well as corrected any Defects not caused by an Employer's risk.
- 1.4.5. The *Contractor* does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an Employer's risk event listed in core clauses 80.1.
- 1.4.6. The *Contractor* is to note that, all his tendered rates shall include all cost associated with loading, transporting, and offloading of contaminated waste material from the contaminated area to the approved landfill site.
- 1.4.7. The cost for the initial survey to be provided by the Contractor shall be claimable under item 14 of the Price list. Such cost shall include all cost associated with the survey required.

1.5. Format of the *price list*

(From page 73 of the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tendering contractor enters the amount in the Price column only, the Unit, Expected Quantity and Rate columns being left blank.

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

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

C2.2 the Price List

ITEM NO	SPECIFICATION	DESCRIPTION	UNIT OF MEASURE	QTY	RATE	AMOUNT
2		AREA OUTSIDE THE SUBSTATION				
	SABS 1200 C	EARTHWORKS				
		BUDGETARY ALLOWANCE FOR INSPECTION				
2.1		Allow the budgetary amount of R10 000 (Ten Thousand Rand) for the inspection of oil spillage in the area outside the substation	Lump Sum	1		
	SABS 1200 C	SITE CLEARANCE				
2.2	8.2.1	Clear and grub	m ²	8600		
	SABS 1200 D	EARTHWORKS				
	8.3.1	SITE PREPARATION				
2,3	8.2.1	Remove topsoil to nominal depth 150mm, stockpile, and maintain	m ²	8600		
	SANS 1200 D	EARTHWORKS				
	8.3.2	EXCAVATION				
		a) Excavate in all materials and use for backfilling as per construction drawings:				
2.4		a) Excavate in all materials and dispose at designated spoil site	m ³	2580		
2,5		b) Extra-over for excavation in hard rock	m ³	200		
2,7		d) Extra-over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor	m ³	2 580		
2,8		Allow for keeping excavation free from water	Item			
	SANS 1200 D					
	8.3.10	TOPSOILING				
2,9		Topsoiling				
2,1	8.3.11	Grassing/Hydroseeding	m ²	8 600		
	SANS 1200 DM	LAYERWORKS				
	12.8	Borrow to fill				
2,11		Earth filling supplied by the contractor	m ³	2 580		

		deposited in layers not exceeding 150mm thick in layers watered and compacted to 95% mod. AASHTO maximum density				
3		INSIDE THE SUBSTATION				
	SABS 1200 D	EARTHWORKS				
	8.3.1	SITE PREPARATION				
3,1	8.2.1	Removal of ballast stones, wash and clean the oil spillage, ballast stones to be set-aside and re-instated after compacting the G5 material	m ²	72		
	SANS 1200 D	EARTHWORKS				
3,2	8.3.2	EXCAVATION				
		a) Excavate in all materials and use for backfill as per construction drawings:				
3,3		a) Excavate in all G5 materials and dispose at designated spoil site	m ³	22		
3,4		b) Extra-over for excavation in hard rock	m ³	22		
3,5		c) Extra-over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor	m ³	20		
3,6		d) Allow for keeping excavation free from water	Item	1		
	SANS 1200 DM	LAYERWORKS				
	12.8	Borrow to fill				
3,7		Import selected G5 layer compacted to 95% mod. AASHTO maximum density	m ³	22		
		Cleaning of concrete surfaces				
3,8		Clean and remove oil spillage on concrete plinths	m ²	100		
4		AREA AROUND THE DAM				
	SABS 1200 C	SITE CLEARANCE				
4,1	8.2.1	Clear and grub	m ²	4 000		
	SABS 1200 D	EARTHWORKS				
	8.3.1	SITE PREPARATION				
4,2	8.2.1	Remove topsoil to nominal depth 150mm, stockpile, and maintain	m ²	4 000		
	SANS 1200 D	EARTHWORKS				
4,3	8.3.2	EXCAVATION				
		a) Excavate in all materials and use for backfill as per construction drawings:				

4,4		a) Excavate in all materials and dispose at designated spoil site	m ³	600		
4,5		c) Extra-over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor	m ³	600		
4,6		Allow for keeping excavation free from water	Item	1		
	SANS 1200 D					
	8.3.10	TOPSOILING				
4,7		Topsoiling	m ²	4 000		
4,8	8.3.11	Grassing/Hydroseeding	m ²	4 000		
	SANS 1200 DM	LAYERWORKS				
	12.8	Borrow to fill				
4,9		Earth filling supplied by the contractor deposited in layers not exceeding 150mm thick in layers watered and compacted to 95% mod. AASHTO maximum density	m ³	600		
		TESTING				
4,1		Allow for necessary inspections and necessary tests on the dam	Item	1,00		
5		DOWNSTREAM FROM THE DAM				
	SABS 1200 C	SITE CLEARANCE				
5,1	8.2.1	Clear and grub	m2	800		
	SABS 1200 D	EARTHWORKS				
	8.3.1	SITE PREPARATION				
5,2	8.2.1	Remove topsoil to nominal depth 150mm, stockpile, and maintain	m ²	800		
	SANS 1200 D	EARTHWORKS				
	8.3.2	EXCAVATION				
		a) Excavate in all materials and use for backfill as per construction drawings:				
5,3		a) Excavate in all materials and dispose at designated spoil site	m ³	120		
5,4		d) Extra-over all excavations for carting away surplus excavated material off site to a dump site to be found by the contractor	m ³	5,4		
5,5		Allow for keeping excavation free from water	Item	1		

	SANS 1200 D					
	8.3.10	TOPSOILING				
5,6		Topsoiling	m ²	800		
5,7	8.3.11	Grassing/Hydroseeding	m ²	800		
	SANS 1200 DM	LAYERWORKS				
	12.8	Borrow to fill				
5,8		Earth filling supplied by the contractor deposited in layers not exceeding 150mm thick in layers watered and compacted to 95% mod. AASHTO maximum density	m ³	120		
		TESTING				
5,9		Allow for necessary inspections and necessary tests on the dam	Item	1,00		
Subtotal						
VAT @ 15%						
TOTAL						

Document reference	Title	No of pages
	Oil Spill Cleaning and Remediation work Uitgezocht Substation	
C3.1	This cover page <i>Employer's Service Information</i>	1
C3.2	<i>Contractor's Service Information</i>	
	Total number of pages	72

Authorised by





[Signature]

T. Khumalo
Site Project Manager (Acting)
Majuba Projects

Date: 10/09/2022

C3.1: *EMPLOYER'S SERVICE INFORMATION*

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1) Description of the service

1.1 Executive overview

The *Employer's* objective:

A high coal transportation cost is presently being experienced for coal deliveries to Majuba Power Station, and a viable alternative is to supply coal by means of heavy (26 t/axle) trains running on a new access railway line. The Employer's objective, therefore, is to establish a Coal Transport System (CTS), utilizing a private siding railway link to Majuba Power Station originating from TFR's existing Coal Line near Ermelo. (The Coal Line is a 26t/axle railway used to convey export coal to Richards Bay). The project consists of a private railway line of approximately 68 km in length starting about 8 km west of Ermelo with the take-off accessible from both directions of the Coal Line. It also includes the construction of the 88Kv Power line of approximately 93 km from Ermelo Uitkoms substation to Majuba Power station. And associated substations



Figure 1. Uitgezocht Substation Locality Plan

1.2 *Employer's requirements for the service*

1.2.1 Description of Services required:

Background

An oil spill occurred at Uitgezocht substation on the southern edge of the wetland (See Figure 1 attached). Approximately 11900L of transformer oil was spilled after the transformer was vandalised. From this point the oil entered the wetland and spread along with the flow of water, following the topographic drainage route along the seepage zone (reference point 1). At point 2 (Figure 1) the flow is directed in a narrow line alongside the railway line embankment until point 3 where it enters the valley bottom wetland where it diverts to west underneath the railway line. From this point the flow is largely confined to the drainage channel and was largely contained within the earth dam (point 4). However, some of the oil passed downstream along with the flow of water via the spillway of the dam. Signs of oil contamination are visible within the wetland until a short distance before it enters the adjoining property (point 5). Berms have been placed at strategic points to capture the remaining oil that is still transported with the water, and these are visibly effective.

It appears that the vegetation has captured most of the oil, but contamination of the soil surface is evident in the temporary zone as well as on the banks of the earth dam. Very little oil is visible on the surface water. In most places where flow is very slow or where the water is standing there is clear signs that the oil is being degraded by algae and organic matter (formation of a green algae rich sludge). Furthermore, aquatic vegetation that is permanently inundated appears not to be affected. Emerging vegetation that has been contaminated can be assumed to have died off. The total wetland surface area that is contaminated is approximately 4Ha. The wetland and the extent of the spill are indicated in Figure 1 on the following page and a photographic record thereafter.

Remote measuring indicates that approximately 4Ha of wetland surface area has been contaminated over a total distance of 1200m. The allowed levels of hydrocarbon (oil) are as follows:

- a) Soil is up to a maximum of 1000ppm and
- b) Water is up to 10000µg/L or 10ppb

MIS collected water and soil samples which were submitted to Environmental Pollution Laboratory (EPL) for Total Petroleum Hydrocarbon (TPH) analysis. Sampling was done at the points as shown in Figure 2 attached and the results are also attached.

1.2.2 Actions to be performed

The main objective of remediation will be to remove or neutralize the remaining oil and to rehabilitate the contaminated area to recover and maintain its wetland functions and biodiversity by employing more than one method. The question is how to handle the spill from this point in time onwards and how to clean up / remove the oil residue on the plants and soil. Usually, oil spills have to be cleaned by removing the contaminated soil and disposing it or cleaning thereof. In this case such dramatic action is not recommended as it will cause more damage to the wetland and secondly the spill is relatively small and can be remediated by other methods. The following ways forward can be considered:

Contaminated crusher stones inside the substation will be removed so that the underlying contaminated soil is exposed for treatment. The crusher stones will be washed and later on returned to their original position after treating the soil. Exposed contaminated soil will be treated with oil degrading microbial products. When the cleaning is complete, compact the affected platform to 98% MOD AASHTO or better. Also, clean the bundwall inside and flush the drainage pipe.

1.2.3 The plan and tasks described in Table 2 provides the tasks that must be completed by the service provider / contractor under supervision of the ECO

- 1) **Berms and trenches** are used to contain the spill. *The placement of berms in the flow pattern of the wetland is recommended to contain the spill and to trap oil present on the surface water. This step has been completed and is notably successful.*
- 2) **Dispersants** are chemical agents (similar to soaps and detergents) that help break up an oil slick into very small droplets, which dilute throughout

the water. While this does not remove the spilled material, smaller oil particles are more easily biodegraded, and it provides a measure of protection for sensitive habitats threatened by a surface slick. Dispersants are sprayed onto spills and are usually used where oil spills have occurred on large water bodies such as the ocean or on lakes. *This method is not recommended as the oil spill is relatively small and the use of dispersants is not applicable.*

- 3) **In Situ Burning (ISB)** is a typical oil spill clean-up technique that involves controlled burning of the oil at or near the spill site. ISB is simple and quick and requires minimal but some specialized equipment and supervision (i.e., fire-resistant boom, igniters).

This method can remove the mass of oil at very high rates. When conducted properly, in situ burning significantly reduces the amount of oil and minimizes the adverse effect of the oil on the environment. The burning of oil converts oil into its primary combustion products, carbon dioxide and water, with a small percentage of unburned and residue by-products. Most of the oil in in-situ burning will be converted to carbon dioxide and water. Particulates, mostly soot are expelled with the smoke plume with an insignificant effect on air quality. *This method is identified as being the most applicable to be used on this particular spill. Working on Fire will be able to assist: <https://workingonfire.org/contact/> Tel: 013 752 4172 / 7047*

- 4) **Absorbents:** Oil only absorbents include pads, booms, cushions, rolls and socks. The oil only absorbents are hydrophobic which means they will not absorb water or water based fluids. Oil only absorbents can be used to remove oil from the water surface and will float indefinitely on water to full saturation. *This method is recommended for use immediately after the spill when the oil has not dispersed yet. With this case, oil in the wetland has been dispersed over a wide area and relatively little is present at any particular point on the soil, vegetation and surface water. This method is recommended (if necessary only) at points where significant oil remains after ISB has been applied. The products of the company Petrozorb can be considered: <https://petrozorb.co.za/>*

- 5) **Biological Agents:** Soil bacteria and fungi will naturally degrade oil if two items are available, namely fertilizer and energy. A mixture of nitrate and phosphate agricultural fertilizers used at very low concentrations is usually enough to meet the first requirement. For energy, bacteria use fertilizers like nitrate, iron or sulfate. *This method is recommended to use after application of ISB to encourage vegetation growth as well as to create ideal conditions for soil bacteria and fungi. The products of the company Petrozorb can be considered: <https://petrozorb.co.za/>*

- 6) **Natural Dispersal:** The small amount of oil that remains after in situ burning and / or the other methods listed above) will eventually break down naturally over time.
- 7) **Mulch:** Provide mulch to cover bare areas larger than 2m².
- 8) **Re-introduce suitable wetland vegetation** if necessary by transplanting sods from the unaffected wetland section. Mayfords "Biomosome Reclamation Veld Seed Mixture for Grassland" (<https://mayford.co.za/veld-grass/>) will be suitable.
- 9) **Monitor** the remediation process.

1.2.4 The plan and tasks described in Table 2 provides the tasks that must be completed by the service provider / contractor under supervision of the ECO

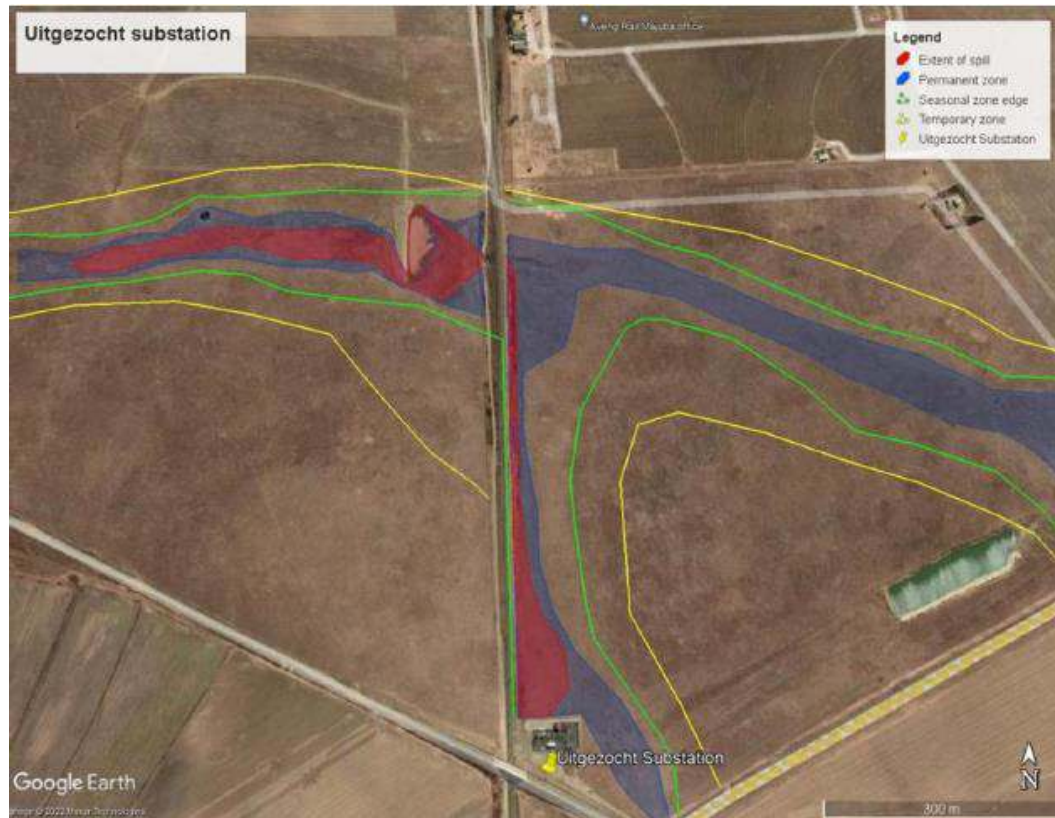
Table 2: Rehabilitation plan

Rehabilitation Plan		
Task	Description	Scope
1	Berms and oil absorbent product Product:	Position berms in wetland along the pattern of flow to capture and contain surface water oil. Inspect the berms weekly and treat the captured oil with oil absorbent product as per instruction by the producer. Replace the absorbent as per instruction of the producer.
2	Sampling	Take samples at similar points listed in Sampling report attached and compare results to calculate the improvement.
3	Biological agents	Treat the wetland with a fertilizer that will encourage the presence of fungi and bacteria as well as vegetation growth.
4	Provide mulch and seeding	Monitor the regrowth of vegetation and provide mulch and suitable seed in areas where growth is slow or bare areas is visible
5	Re-introduce suitable wetland vegetation	Monitor progress. Re-introduce suitable wetland vegetation, if necessary, by transplanting sods from the unaffected wetland section at the start of the wet season.
6	Monitoring	Monitoring of the rehabilitation plan throughout its implementation and after all the tasks have been completed is important in order to determine the effectiveness of the plan and to identify possible constraints.
7	Closure	Closure can only be made after the plan has been successfully completed.

1.2.5 Site Description

Site Location

The Affected Property locality map is shown below.



1.3 Interpretation and terminology

1.3.1 The following abbreviations are used in this Service Information:

Wherever the following words or phrases are used in the listed or referred documentation, they are interpreted in this contract as follows:

Word or Phrase	Interpretation
'Eskom Holdings' (Eskom or Electricity Supply Commission) in the context of: <ul style="list-style-type: none"> Owner Insurer of the Works Paymaster A party to the contract 	The <i>Employer</i> .
'Eskom Holdings' in the context of: <ul style="list-style-type: none"> A duty or procedure to be performed the administration of the contract 	The <i>Employer</i> or <i>Service Manager</i> as determined by the conditions of contract.
Accepted or approved by (or to the satisfaction of) the <i>Service Manager</i> , Engineer, <i>Employer</i> or the Architect.	Accepted by the <i>Service Manager</i>
A duty, procedure, decision or action of the Engineer, <i>Employer</i> or the Architect and or the Superintendent, Eskom's Representative, Site Service Manager or Clerk of <i>Works</i> .	An action of the <i>Service Manager</i> on the context. Clause 14 of the Core Clauses determines what the actions of each are. Either may delegate in terms of Clause 14.2

1.3.2 The following abbreviations are used in this Service Information:

The following abbreviations are used in this Scope:

Abbreviation	Description
MRP	Majuba Rail Project
CTS	Coal Transportation System
EPL	Environmental Pollution Laboratory
TPH	Total Petroleum Hydrocarbon
SHE	Safety, Health and Environment

2) Management strategy and start up.

2.1 The *Contractor's* plan for the service

The Tenderer shall submit a programme (Plan) (computer printout and electronic version on CD) with his Tender and during the provision of the services. The plan to be submitted shall be a level 3 programme that incorporates all the work to be performed under this contract for Oil Spill Clean-up and Remediation Services for Majuba Rail as cited in the Contract Data clause 30.1. The *Contractor* is to ensure that the key dates for the Oil Spill Clean-up and Remediation Services for Majuba Rail are clearly identified on the programme to be submitted for acceptance by the *Service Manager*.

The *Service Manager* does not intend duplicating the *Contractors* planning and scheduling, however, the Accepted Programme (Plan) will be used in the *Employers* internal integrated and Master project programmes for project control purposes, updating and monitoring. The *Service Manager* requires one project programme to be used and updated during the Oil Spill Clean-up and Remediation Services for Majuba Rail, 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 submitted after contract award must be fully resource loaded.

Any changes 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 *Service 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 *Service Manager*.

The latest version of the Primavera has been adopted by the *Employer* for all planning, progress monitoring and reporting on the Contract. The *Contractor* obtains this software and applies it for the planning and control of the work in line with the Work Breakdown Structure (WBS), which will be agreed upon contract award.

The Tenderer shall submit a programme (computer printout and electronic version on CD) with his Tender in accordance with Tender Schedule, Part 1 to define the duration for Oil Spill Clean-up and Remediation Services for Majuba Rail.

2.2 Planning and Scheduling Levels

All planning and scheduling is done based on the Critical Path Method (CPM). The *Contractor* uses activity codes to define interfaces to be agreed upon, between the *Service Manager* and the *Contractor*. The *Contractors* programme shows the actual path clearly.

The schedule layout takes into account the approved WBS, reflecting the manner the Oil Spill Clean-up and Remediation Services for Majuba Rail is to be performed as per the *Contractors* Method Statement and how activities are to be summarised, reported and monitored.

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

- a) Management programme (Level 1)
- b) Project programme (Level 2)
- c) Control programme (Level 3- projected delivery targets per day, week or month)

2.2.1 Management Programme (Level 1) - Project Master Programme

The management programme level 1 is the project master programme and is used to show the overall time frames for the works. It is a statement of project objectives recorded in graphic form.

2.2.2 Project Programme (Level 2)

A “rolled up” programme from the control level 3 programme is produced. It will be separated by phase.

2.2.3 Control Programme (Level 3-Sub-system level)

The project programme is prepared representing the significant work activities and deliverables associated with the service.

The programme includes;

- a) Major milestones, interface dates, access dates and key dates
- b) The duration of major activities and their relationship to one another
- c) Identified long lead material items
- d) Responsibility assignment for accomplishing project objectives end product is a time

scaled bar chart programme developed using logic network.

NB: The *Contractor's* Forecasted Rate of Invoicing (FRI) should also align with the resource loading on the programme.

2.3 Management meetings

A **weekly site meeting** shall be held to deal with progress, programme and administrative matters at a work activity level. The meeting shall be chaired by the *Service Manager* and attended by the *Contractor* and the *Employer's* Environmental Officer.

A **monthly progress meeting** shall be held to deal with administrative matters at a project management level. The meeting shall be chaired by the *Service Manager* and attended by the *Contractor* and the *Employer's* support representative.

A **monthly measurement meeting** shall be held to deal with the processing of the *Contractor's* invoices, backup documentation, and monitoring of the *Price List* against the Target Price. The *Contractor* shall present a monthly report at this meeting that will include graphs of actual progress against tendered progress as well as cumulative actual cost against cumulative tendered cost as per the tendered programme. The format of this monthly report as well as the level of detail of its contents shall be agreed with the *Service Manager*

All the above-mentioned meetings shall be held at a convenient location at or close to the *Affected Property*.

Before each successive monthly measurement meeting and on a weekly basis, the *Contractor* shall submit to the *Service Manager* all current (or cumulative to that assessment date) backup documentation for acceptance. Backup documentation shall include, but not limited to: all calculation sheets, citing each completed task and item in the *Price List*, etc.; acceptance of completed work payment purposes, including confirmation of attainment of each criteria set out either in the specification or any other document which this contract prescribes.

Following the monthly measurement meeting, the *Contractor* shall present a detailed final schedule (with revisions agreed to at the monthly measurement meeting incorporated), including the necessary backup documentation, to the *Service Manager*

for final checking. Once accepted the *Contractor* will submit it to the *Service Manager*. This will then be used by the *Service Manager* to assess the amount due in terms of Clause 50 of the TSC.

The final format and layout of this monthly schedule as well as the level of detail of backup information required are to be agreed between the *Service Manager* and the *Contractor*.

Clause 52 of the TSC shall apply in terms of accounts to be kept by the *Contractor* to verify the above monthly schedule of actual costs.

All meetings shall be recorded using minutes and a register prepared and circulated by the person who convened the meeting. Such minutes and register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

2.4 Documentation control

2.4.1 Documentation to be provided by the *Employer*

The *Contractor* will be provided with one copy of the Contract, i.e. of the signed form of agreement together with the documents which would make up the Contract as identified in the form of agreement.

2.4.2 Document Identification

All documents issued shall be numbered, dated and registered in an on-site project document management system, maintained by the *Contractor* and conforming to the *Contractor's* Quality Plan, subject to the acceptance of the *Service Manager*. All changes to such documents shall be made in writing with such revisions also recorded in the above document management system. All documents shall be available at their recorded locations as noted in the document management system.

2.4.3 Document Submission

Within two (2) weeks of the starting date, the *Contractor* submits a comprehensive time schedule for submission of all documentation, procedures, quality control plans and any other information for the review and acceptance by the *Service Manager*.

All project documents must be submitted to the delegated *Employer's* Representative with transmittal note. In order to portray a consistent image it is important that all

documents used within the project follow the same standards of layout, style and formatting as described in the Service Instruction.

The *Contractor* is required to submit documents as electronic and hard copies and both copies must be delivered to the *Service Manager* or representative delegated by the *Service Manager* with a transmittal note.

2.4.4 Email Subject

The *Contractor* submits all documentation to the *Service Manager* in the following media:

- Electronic copies are submitted to Eskom Documentation Centre. The email subject as a minimum has the following: (Station Project Name_Discipline_Subject). Electronic copies that are too large for email are delivered on CD/DVD, large file transfer protocol and/or hard drives to the Project Documentation Centre. In a case where CD has been submitted, a notification email, with the transmittal note attached, is sent to the project. The *Service Manager* is copied on the email as well.
- Hard copies are submitted to the *Service Manager* accompanied by the Transmittal Note.

2.4.5 Electronic Data Control

The *Contractor* shall carry out a daily backup of all electronic information contained on the computer system on site. Electronic backup information shall be kept in an appropriate format, suitably labelled, segregated and stored in an environment that will not adversely affect its condition.

2.4.6 Incoming and Outgoing Correspondence

The *Contractor* shall number and date all incoming and outgoing correspondence and appropriately register it in the on-site project document management system – refer Section Documentation and Data Control and Identification.

2.4.7 Daily Records

The *Contractor* must keep daily records of resources (people and equipment employed) and site diaries in respect of work performed on the site. A copy of the previous day's daily record must be provided to the *Service Manager* on a daily basis. Such recorded information shall be referred to Trip Sheet for each truck. In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Service Manager* for payment. The *Contractor* applies for payment with a tax invoice addressed to the *Service Manager* as follows:

At each *assessment interval*, the *Contractor* submits to the *Service Manager* a forecast rate of invoicing that includes all the expected payments by the *Service Manager* to the *Contractor* on a month-by-month basis.

3) Health and Safety Risk Management and Quality Assurance

3.1 Health and Safety Risk Management

Reference is made to Part C3.1.4, which contains Eskom's Minimum Requirements for Health and Safety.

The *Contractor* shall comply with the Occupational Health and Safety Act (OHS Act No 85 of 1995) and Regulations. Furthermore, the *Contractor* shall comply with any additional current statutory requirements of any relevant Government Departments regarding health and safety and environmental health.

Only the latest version/ revision of the applicable legislation, acts and regulations shall be deemed to be accepted at the Majuba Power Station. Not limited to the following below legislation, acts and regulations are complied with:

- Compensation for Occupational Injuries and Diseases Act 130 of 1993
- National Water Act 36 of 1998
- Occupational Health and Safety Act and Regulations (85 of 1993)
- National Environmental Management Act 107 of 1998
- Applicable South African National Standards (SANS)
- National Road Traffic Act 93 of 1996
- Basic Conditions of Employment Act 75 of 1997
- National Veld and Forest Fire Act and Regulations 101 of 1998
- Environmental Conservation Act and Regulations 73 of 1989
- Committee of Land Transport Officials (COLTO)
- SACPCMP Act no. 48 of 2000
- Radiation Protection Act

The *Contractor* shall establish and enforce rules to ensure the health and safety of his own employees and those of its subcontractors so that high standards of personnel health and safety are achieved and maintained. The *Contractor* shall exercise and enforce all necessary care and measures to preclude exposure of personnel, labour, and nearby residents (if any) to potential health hazards and environmental pollutants.

The *Contractor* shall ensure that all persons which are employed and or deployed to work on site undergo police clearance, and are certified to have no criminal records. This shall be done prior to them being allowed or given access to start work on site. SHE Specification and

applicable procedures, policies, guidelines, and standards are provided under Part C3.1.4-Eskom Health and Safety Management.

The *Contractor* is required to compile a SHE File which includes but not limited to the following;

Safety, Health, and Environmental Plan:

- SHE organization within the Company-Responsibility & Accountability
- SHE Incident management
- Planning of conduct of work activities including planning for changes and emergency work
- Waste management
- PPE- Personal Protective Equipment
- Emergency planning and fire risk management
- Vehicle and driver behaviour safety
- Contractor or Contractor selection and management
- Design and specifications
- Competency, training, appointments
- Communication and awareness
- Management commitment and visible felt leadership
- Baseline SHE Risk Assessment (BRA). Identification, assessment and management of Safety,
- Health and Environmental risks related to the scope of work. The methodology used for the risk assessment must be provided together with the BRA.
- Valid Letter of Good Standing (COIDA or equivalent)
- SHE policy signed by CEO/ MD- Comply to OHS Act Section 7 or OHSAS 18001

In addition, reference is to be made to Part C3.1.4, Annexures and Health and Safety Specification, for documents and policies which the *Contractor* is to adhere to.

3.2 Environmental constraints and management

The mitigation requirements are recorded and attached in Part C3.1.2 and the Environmental Management Plan refers.

(i) The mitigation requirements are recorded in the Construction Environmental Management Plan. The *Contractor* shall acquaint himself fully with the contents of the Majuba Rail EMP to ensure that the *Contractor* is fully aware of the requirements of the Majuba Rail EMP and its implications on the works. The *Contractor's* rates tendered shall cover all costs that will be incurred to comply with all requirements of the Majuba Rail EMP. Special attention is drawn inter alia to the following aspects:

- **Site demarcation:** The *Contractor* shall demarcate his camp site, be restricted to that specific area and take full responsibility to restore the area to its original condition before the contract commenced.
- **Waste management:** The *Contractor* shall dispose of all waste off-site at a licensed waste disposal facility.
- **Sanitation:** The *Contractor* shall provide an appropriate temporary sanitation facility;
- **Dust control:** The *Contractor* shall be responsible to apply effective dust control measures;
- **Re-vegetation:** The *Contractor* shall be responsible to re-vegetate the locations of trial pits, boreholes, roads and tracts through the veld, the camp site and any area of activity related to the works, as may be required;
- **Fire prevention:** It shall be the responsibility of the *Contractor* to prevent veld fires at all times during the contract; and
- **Riverbank / riverbed rehabilitation:** It shall be the responsibility of the *Contractor* to rehabilitate the riverbank / riverbed where the river(s)/stream(s) were entered and where work was performed.

- (ii) The *Contractor* shall take full responsibility for protecting the natural environment and eliminating or minimising the negative impacts of construction on the environment during construction. Nothing specified herein shall relieve the *Contractor* of any obligations or responsibilities in this regard.
- (iii) The *Contractor* shall implement an Environmental Policy, in line with various statutory regulations, the Construction Environmental Management Plan, Ref: Part C3.1.2 and the Service Information. The Environmental management plan shall be submitted to the *Service Manager* within 14 days after the awarding of the contract. Upon the *Service Manager's* acceptance, the *Contractor* shall immediately implement the policy and any amendments and keep it in operation for the duration of the contract.
- (iv) The *Contractor* shall keep the Environmental management plan updated in accordance with his Quality Management Procedures and make amendments as required by the *Service Manager* and the circumstances prevailing at the time. The *Contractor* shall immediately supply the *Service Manager* with a copy of an updated Environmental management plan which shall clearly indicate the revisions undertaken.

3.2.1 General

- (i) The *Contractor* shall conduct his activities so as to cause the least possible disturbance to the existing amenities, whether natural or man-made, in accordance with all the currently applicable statutory requirements. Special care shall be taken by the *Contractor* to prevent irreversible damage to the environment. Disturbance or disruption of the daily lives of local communities shall be avoided.
- (ii) The Contractor's responsibility in terms water use shall be as prescribed in the latest Water Use authorisation, Ref: Part C3.1.2
- (iii) The Contractor shall take adequate steps to educate all members of his workforce as well as his Supervisory staff on the relevant environmental laws and regulations. The Contractor shall supplement these steps by prominently displayed notices and signs in strategic locations to remind personnel of environmental concerns.
- (iv) A suitably qualified individual shall be responsible for environmental management, in accordance with the Construction Environmental Management Plan. This position shall be designated the "Environmental Officer" (EO).

The duties of the EO shall include but not limited to:

- Liaison with *Employer's* environmental staff;
- Monitoring of all of the Contractor's activities for compliance with the various environmental requirements.
- Instituting remedial action in the event of non-compliance.
- Implementation and management of environmental protection measures;
- Reporting of environmental incidents and routine reporting of environmental activities, and
- Participate in all environmental audits and inspections

3.2.2 Method Statements

The *Contractor* shall submit within 14 days after the starting date a Method Statement containing details of all site layouts and environmental protection measures proposed to the *Service Manager* for review and acceptance.

These shall include but not limited to:

- Site establishment layout;
- Workshops' storage areas layout;
- Pollution prevention measures;
- Refuse deposal design (where applicable);
- Temporary access roads.

In addition, the *Contractor* shall provide detailed method statements on how he intends to carry out the *works*; this shall apply to all and any part of the *service* as provided in the *conditions of contract*

3.2.3 Temporary Services and Facilities

- Temporary pipelines, power lines, telephone lines and other temporary services and facilities shall be located in a manner that will cause the least disturbance and disfigurement to the environment. Power lines shall be suspended below insulators and be of such design as to prevent the electrocution of birds to the greatest extent possible.

- All fuel storage tanks shall be bunded to 110 % of the total storage capacity. Fuel dispensing areas and workshop areas shall be provided with concrete hard standing draining to oil separators. This will also apply to other areas with pollution potential.
- Vehicle cleaning shall be undertaken in designated wash bays, which have an impermeable floor and are bunded to contain runoff and direct in onto a sump. Oil and diesel will be skimmed off the sump water and recycled or disposed of in the correct manner.
- Vehicles worked on outside the wash bays will have portable drip trays placed under them to catch oil and diesel which may leak from the vehicles.

3.2.4 Protection of Rivers, Streams and Watercourses

- All rivers, streams and watercourses shall be protected from direct or indirect spills of pollutants such as garbage, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and wastewater or organic material resulting from the *Contractor's* activities. In the event of a spill prompt action shall be taken to clear polluted or affected areas.
- The *Contractor* shall not work within river floodlines, streams, watercourses and wetlands without the written acceptance of the *Service Manager* as required for the execution of the work.

3.2.5 Refuse and Waste Control

- The management of solid waste on Site shall be strictly controlled and monitored. Only licenced waste disposal landfill sites shall be used.
- The quantities of waste generated on *Affected Property* shall be minimised;
- Labelled recycling bins shall be used and waste separated where possible. In addition, a recycled-material collection schedule shall be established and the bins shall be collected regularly;
- Eating areas for the construction staff shall be designated and supplied with waste bins.
- No on-site burying or disposal or unauthorised burning of any waste materials, vegetation, litter or refuse shall occur;
- Bins provided will be sufficient to store the solid waste produced on a daily basis;
- The bins should be emptied at least once a day;
- Waste from bins may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof and which the *Service Manager* has accepted;

- All solid waste shall be disposed of off site, at a licenced landfill site. The *Contractor* shall supply the *Service Manager* with a certificate of disposal; and
- Waste shall be separated into domestic waste, building/construction rubble, scrap metal, oil and grease and hazardous waste and dealt with in the following manner:

3.2.5.1 Domestic Waste

- Metal refuse bins to BS 792 or equivalent plastic refuse bins, all with lids, shall be provided by the *Contractor* for all buildings. Refuse shall be collected and removed from all facilities on the Site at least twice per week. Domestic Waste shall be transported to the accepted refuse disposal site off site in covered containers or covered trucks.

3.2.5.2 Organic waste

- Refuse from food preparation and eating areas shall be collected and removed daily. Organic Waste shall be disposed of as per Domestic Waste.

3.2.5.3 Building/Construction waste

- Inert building/construction rubble shall be disposed at a licenced landfill sites

3.2.5.4 Scrap metal

- Scrap metal shall be disposed off-site at a licenced scrap metal recycling facilities.

3.2.5.5 Used oil and grease

- Used oil and/or grease shall be removed from site to a licenced oil recycling company.

3.2.5.6 Hazardous waste

- All hazardous waste shall be disposed of in a licenced hazardous waste disposal site and safe disposal certificate supplied to the *Service Manager*.

3.2.5.7 Protection of Flora

- The removal, damage and disturbance of indigenous flora are prohibited.
- At the commencement of the contract, the *Service Manager* will identify to the *Contractor* indigenous flora or any rare or endangered flora that shall be preserved. The *Contractor* shall thereafter demarcate such and undertake all necessary measures to ensure the protection of such flora, including replanting and any special care required in accordance with the Majuba Rail EMP.

- The use of herbicides is prohibited unless approved by the Service Manager.

3.2.6 Protection of the Fauna

- The Contractor shall protect fauna living within the Affected Property and shall ensure that hunting, snaring, poisoning, shooting, nest raiding or egg-collecting and disturbance does not occur.
- The Contractor is to ensure that his employees are instructed not to feed wild animals.
- The use of pesticides is prohibited unless accepted by the Service Manager.
- No domestic pets or livestock are permitted on Site.

3.2.7 Preservation of Topsoil

- The *Contractor* shall remove and stockpile topsoil in accordance with Clearing of site, or as directed by the *Service Manager*, in quantities sufficient for reinstatement, in accordance with the Majuba Rail EMP. Topsoil shall be removed from, inter alia, working areas (including quarry pits) and relevant areas of the Permanent Works, construction, haul and other access roads and such like, all as directed by the *Service Manager*.

3.2.8 Erosion Control and Stormwater Management

- The Contractor shall include in the design of the works measures to prevent erosion resulting from his actions on the Affected Property. The Contractor shall take appropriate and active measures to prevent erosion resulting from his works, operations and activities which shall be agreed with the Service Manager even when such potential erosion may take place or occur beyond the limits of the Affected Property because of the actions of the Contractor. Such measures shall include properly constructed watercourses, energy dissipaters, establishment of temporary vegetation as specified in the Majuba Rail EMP, to counter erosion and avoid discharges into water courses, wetlands, agricultural lands, etc.

3.2.9 Spoil Disposal and Stockpiles

Where there is a requirement for spoil disposal, the *Contractor* shall:

- Obtain written permission from the *Service Manager* to create the spoil disposal;
- Submit a Method Statement for acceptance by the *Service Manager*;

- Ensure that topsoil that would have been buried as a result of the spoil disposal is moved to one side and replaced over the spoil disposal on completion;
- Ensure that any rare local plant species as identified by the *Service Manager* that would have been buried or destroyed are replanted over that spoil disposal or elsewhere as directed by the *Service Manager*;
- Ensure that the spoil disposal are shaped to blend with the local topography as far as is practicable;
- Not have slopes steeper than 1:2;
- Ensure that drainage is provided to control ground water exit gradients within the spoil disposal such that migration of fines is kept to a minimum;
- Ensure that surface water runoff is conducted through or over or around the spoil disposal to prevent erosion damage resulting from stormwater runoff;
- Ensure that perimeter drainage channels are provided, and lined with rock or other suitable material to prevent scour, so that runoff will be collected and conducted past the spoil disposal;
- Rehabilitate the surface of the spoil disposal as specified in the Majuba Rail EMP and
- Spoil shall be free from explosive residues and detonators.

3.2.10 Dust and Vehicle Emission Control

3.2.10.1 Dust

- A dust control programme shall be implemented by the *Contractor* to maintain a safe and healthy working environment, minimise nuisance for surrounding residential areas, prevent damage to the natural vegetation of the area and protect topsoil.
- The *Contractor* shall take appropriate measures to minimise the generation of dust as a result of his works, operations and activities.

- The *Contractor* shall prepare and submit a Dust Control Method Statement to the *Service Manager* within 14 days after the Starting Date. As a minimum, the statement should address the following:
 - Schedule of spraying water on unpaved roads paying due attention to control of runoff;
 - Speed limits for vehicles on unpaved roads and minimisation of haul distances;
 - Measures to ensure that material loads are properly covered during transportation;
 - Schedule for wheel cleaning and measures to clean up public roads that may be soiled by construction vehicles;
 - Minimisation of the area disturbed at any one time and protection of exposed soil against wind erosion;
 - Reporting mechanism and action plan in case of excessive wind and dust conditions.
 - The control measures shall also include regular and effective treatment of gravel access roads and working areas, use of dust extractors on drilling equipment or wet drilling, use of personnel protective equipment, etc.

3.2.10.2 Dust measurement

- The *Contractor* shall provide, maintain and calibrate fall out dust collectors for the measurement of dust fallout at areas where dust may be expected. The exact location of individual collectors shall be established in conjunction with the *Service Manager*.
- The *Contractor* shall arrange for the collection of dust from the dust collectors on a monthly basis and calculate the dust fallout according to the following formula:
 - where,
 - M = mass of dust sample
 - A = area of opening of dust collector
 - d = number of days over which sample was collected
- Should fallout exceed 0.25 g/m² per day then the Contractor shall cease with the operations that are causing the dust until such time as remedial measures have been put in place to ensure that dust levels are with the specified limit as specified in the Majuba Rail EMP.
- The Service Manager may from time-to-time instruct the Contractor to carry out more frequent testing of dust levels or at other locations.
- The Contractor shall keep records of all dust level measurements for the duration of the contract. These records shall be submitted each month to the Service Manager.

3.2.11 Vehicle Emissions

- Vehicles emitting noticeable diesel fumes will not be permitted to continue working on *Affected Property*. Vehicle emissions shall be monitored on a regular and on-going basis in order to ensure that vehicles working on Affected Property comply with legislated requirements.

3.2.12 Noise Pollution

- Having due regard for local communities and dwellings, the Contractor shall restrict any of his operations which result in undue noise disturbance to those communities and dwellings to the hours of 06:00 to 18:00 on weekdays or otherwise as agreed with the Service Manager.
- The Contractor shall not use sound amplification equipment on Affected Property unless in emergency situations.

- The Contractor shall ensure that environmental awareness and training for all employees includes the need to minimise noise. The Contractor shall provide suitable ear protectors to all of his staff and others entering areas with high noise levels. Zones of risk shall be clearly identified with warning signs.
- The Contractor shall provide and maintain equipment to measure noise levels in accordance with SANS 10083.
- The Service Manager may from time-to-time instruct the Contractor to carry out more frequent testing of noise levels. Furthermore, he may require the Contractor to carry out testing in other areas of the Affected Property
- The Contractor shall keep records of all noise level measurements for the duration of the contract. These records shall be submitted each month to the Service Manager, or on the request of the Service Manager.

3.2.13 Relations with Local Communities

- The *Contractor* shall liaise with the local Communities through the accepted channels or forums as indicated by the *Service Manager* on matters concerning the impact of his operations on local communities and other matters. Any problems which cannot be resolved by the *Contractor* shall be referred to the *Employer* through the *Service Manager*. A senior member of the *Contractor's* staff shall be required to attend the meetings of the Environmental Management Committee as and when requested.

3.2.14 Site Roads

- Prior to the construction of temporary site roads the Contractor shall submit a Method Statement for acceptance by the Service Manager 14 days before such road is due to be constructed. A photographic record of the proposed route shall be maintained by the Contractor prior to the Oil Spill Clean-up and Remediation Services for Majuba Rail.

3.2.15 Natural Features and Heritage Resources

- The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Affected Property for survey or other purposes unless accepted by the Service Manager. Any contravention of this Sub-Clause will require the item to be restored/ rehabilitated at the Contractor's cost. The Contractor shall ensure that should any archaeological finds be made during the construction excavations, the Contractor shall inform the Service Manager immediately in order to

reach agreement regarding proper procedures to minimise damage and or effect salvage operations of the findings.

- All heritage resources to be affected by the Project shall be treated and managed in accordance with the National Heritage Resources Act 25 of 1999 and the National Monuments Act 28 Of 1969.
 - Remedial action in the event of non-compliance.
 - Implementation and management of environmental protection measures; and
 - Reporting of environmental incidents and routine reporting of environmental activities.

No measurement or payment will be made against any items for the rehabilitation of the *Contractor's* working and accommodation areas (including the areas designated for the *Service Manager's* use) or for rehabilitation of areas used for temporary roads.

No overhaul will be paid for work within the Affected Property.

3.3 Quality assurance requirements

All Quality Management System requirements shall comply with 240-105658000 *Contractor's* Quality Management: Specification

The *Contractor* shall be responsible for the quality of and testing of materials, workmanship and production processes used in completing the works. Within 14 days of the commencement of the contract, the *Contractor* shall submit to the *Service Manager/Quality Representative* a copy of his Quality Control Plan describing the procedures by which quality control and quality assurance of the work will be ensured.

Where the *Contractor* maintains an accredited Quality Control System, details of the level of the *Contractor's* self-certification procedures to be adopted in respect of supplied materials shall be agreed with the Quality Representative or *Service Manager* prior to commencement of work. Where no accredited Quality Control System exists, the *Contractor* shall plan all quality management procedures, carry out all quality control testing as required and shall make available records of such testing for the Quality Representative acceptance. The *Contractor* shall submit full details of the proposed quality management system and procedures for acceptance by the Quality Representative, who shall have full access to all records, Site trials and tests. The *Contractor* shall ensure that monitoring and measuring equipment are calibrated and verified to confirm serviceability prior to usage, records of such shall be kept on Affected Property.

The *Contractor* shall be responsible to submit, before commencement of any work of site, a method statement together with quality control plan and or inspection and test plan.

The Contractor shall be responsible for the preparation, maintenance during the execution of the works and submission of Data Packs to the *Service Manager* for acceptance at least thirty (30) days before the Completion Certificate is issued. The Data Packs shall be in accordance with the Data Packs Specification as contained in the Annexures Part C3.1.6

- Quality Method statement based on scope.
- Quality Policy Approved by top management.
- Quality Objectives Approved by top management.
- Documented information for defined roles, responsibilities and authorities
- Documented information for Control of Externally Provided Processes, Products and Services
- Form A is completed and signed.

Post-Contract Award

The supplier shall complete a QCP before contract award. This shall be reviewed and signed off by Eskom within 14 days after contract award.

- The *Contractor* shall complete a quality control plan and ITP(s) for review and acceptance by Eskom prior to the commencement of any work, inclusive of subcontracted work, within 14 days after contract award.
- The sub-supplier QCP/ ITP shall be submitted for review and comment by the *Contractor* and by Eskom within 14 days after the award of the tender. All *Contractor* and Eskom comments shall be resolved prior to commencing work.
- The equipment lists (if applicable) and an indication of pressurised components and systems

Contractor Quality Performance Monitoring Phase

During the contract execution phase, *Contractor* shall be monitored by Eskom for performance on quality-related aspects. The outcomes of such monitoring will enable Eskom to take any appropriate actions pertaining to the *Contractor*.

The monitoring shall be carried out periodically by Eskom or at predetermined intervals during the execution of a contract.

The monitored key performance areas include the following:

- Quality
- Delivery

Management of Nonconformities and Nonconforming Outputs Identified by Eskom

- Nonconformity reports raised by Eskom and issued against the *Contractor* shall be investigated by the *Contractor* as a matter of urgency in order to determine the root cause, corrective action, and preventive measures, as required, with implementation time frames.
- formal response shall be prepared in respect of the defined criteria and submitted to Eskom for its review, evaluation, and acceptance, within a maximum of 7 working days from the date of issue of the nonconformity and should be aligned with the site requirements/procedure.
- Eskom may, at its discretion, request a response sooner and, in any case, before the *Contractor* proceeding with any pending/further intervention or corrective action, as may be required by Eskom.

- Should Eskom or its inspection authority/agency identify any non-conforming products during the conduct of its audits/surveillances/inspections, the Contractor shall be deemed to be in breach of contract and shall be held liable for any repair, rework, and/or associated replacement costs. The Contractor may, in such instances, also be held liable for the full costs associated with the conducting of follow-up audits/surveillances/inspections.
- The nature, magnitude, and/or frequency of nonconformity and inspection defect/rejection reports raised by Eskom or its appointed inspection authority/agency shall form the basis of any action to rescind/withdraw the Contractor's qualification status.
- Nonconforming outputs identified by Eskom shall be documented via a NC Report and issued to the suppliers via the contract communication protocol. The Contractors shall investigate the matter and respond in writing to Eskom of disposition within seven (7) days identifying.
- Eskom shall identify repeat deficiencies as systematic failures of the Contractor's QMS and shall notify the Contractor of the trends. Eskom can initiate an internal audit to highlight the system failures. The Contractor with raise a Corrective Action Report and undertake Root Cause Analysis. In such cases, QMS rectification and/ or update measures shall be taken Immediately

Operational Documents

The *Contractor* submits, as a minimum, the following documents, as required by the *Project Manager* during the execution of the *works*:

- a) Updated QCP register
- b) Inspection notifications accompanied by their inspection report
- c) Bi-Weekly contract quality progress report
- d) Data books for the completed works, before commissioning can commence (refer to the data book specification)

Quality Responsibility

The *Contractor's* responsibilities include but are not limited to the following:

- a) The *Contractor* is accountable for the quality of the output and liable for any failures.
- b) Implementation of his QMS on site

c) Administration of his QA/QC systems on site

The *Contractor* submits monthly quality reports, on the last working day of the month. The report includes, but is not limited to the following

- A register of NCRs and defects(if applicable)
- Updated QCP / ITP register
- QA bi-weekly report summary
- Risks with Mitigation plan

4) Procurement

4.1 Sub-Contracting

No *subcontractor* shall be appointed without the written acceptance of the *Service Manager*, refer to Clauses 11 and 26 of the TSC.

The *Contractor* shall provide any necessary facilities in order to manage any *subcontractor* to ensure that the works are carried out in accordance with:

- The plan of services ;
- The conditions of contract; and
- The Service Information and in particular, the requirements of the Safety Plan, Environmental Management Plan, Quality Management Plan and Operational procedures

4.2 BBBEE and Preferencing Scheme

The *Contractor* shall comply with the *Employer's* Black Economic Empowerment Policy; refer Part C1.2 Contract Data – Part One.

4.3 People

The *Contractor* will be required to provide their own labour for the execution the services. 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 people. Failure by the *Contractor* to adhere to employment condition stipulated above may have a negative impact on the *Contractor* and such shall be the responsibility of the *Contractor*.

4.4 Plant and Materials

4.4.1 Quality

Proof of compliance with materials specifications and samples of materials shall be required. This shall also apply to the *subcontractors*. All materials and plant which are procured for the *works* shall be subject to the provision of a proof of payment by the *Contractor* or his subcontractors at least 30 days after delivery to site; ownership shall then transfer to the *Employer* once valuated, accepted and paid for by the *Employer*.

The *Contractor* shall note that the *Employer* may issue free aggregate material for the sole use in this contract. This shall be subject to conditions and availability of each aggregate size.

This may be obtained from existing platforms and or stockpiles on site, on a free issue basis. All such materials shall be subject to availability and conditions related thereto.

The *Contractor's* responsibility in terms of materials obtained on site shall include but not limited to:

- Ensuring that all materials comply with the specifications for each classification.
- Provision of all necessary plant and equipment to enable assessment, extraction and transportation to the works.
- Shaping and stabilization of excavated faces of stockpiles and or platforms to natural ground profile and prevention of erosion as directed by the *Service Manager*.
- Rehabilitation of disturbed grassed areas, within the vicinity or areas leading to the stockpiles or platforms.
- No additional payment shall be made over and above the items in the Bills of Quantities, the *Contractor* shall be deemed to have allowed for all the above in his tendered rates.

4.5 Tests and inspections before delivery

N/A

4.6 Marking Plant and Materials outside the Working Areas

N/A

5) Working on the Affected Property

5.1 Service Specification

Applicable Service Delivery Information

The *Contractor* is responsible for ensuring that he is thoroughly familiar with all applicable Standard Specification, amendments, and corrections before submitting his tender. The *Contractor* is hereby required to take note of the applicable policies, procedures, and any applicable regulations when loading and transporting of contaminated soil.

The extent and outline of the works area that may be used by the *Contractor* in carrying out the works shall be agreed with the *Service Manager* and the *Employer's* Environmental Control Officer. Reference is made to the Part C3.1.2 Service Information for the allowable working times.

Applicable Statutory Requirements

The *Contractor* shall comply with all the relevant South African statutory requirements in terms of Health, Safety and Environmental laws. Affected Property specific requirement shall not take precedence over any statutory requirement. The *Contractor* shall comply with all relevant statutory requirements of South Africa, which relates to the activities, which shall be undertaken by the *Contractor* in the performance of the *services*.

Project Specifications

- There are no Project Specifications.

5.2 *Employer's* site entry and security control, permits, and site regulations

Effective security is paramount in ensuring continuity of electricity supply, thereby contributing to the long-term sustainability of Eskom and the South African economy. Security aims to prevent and mitigate security risks that can negatively impact on Eskom's assets, information, processes, people and interest. The optimisation of security measures, in order to maximize value in terms of the deterrence, detection, delay, reporting and responses, is however site intrinsic and would be managed as such.

Criminal Background Check / Screening Requirements

“Acceptance of this tender is subject to the condition that both the contracting company’s management and its employees will provide Eskom with a clear criminal record not older than thirty (30) days from a reputable screening company. If the principal contractor appoints a subcontractor, the same provisions and measures will apply to the subcontractor. Acceptance of the tender is also subject to the condition that the contractor will implement all such security measures for the safe performance of the work as required in the scope of the contract.

For the purpose of clarity, contractors who was previously found guilty of offences in terms of the National Road Traffic Act 93 of 1996 and/or has paid guilt admission fines, will be exempted, and be allowed to access site.

Any person, individual, *Contractor* or a *Contractor* wanting access any Eskom site (Affected Property) is required to comply with the following.

5.2.1 Cameras

- a) No unauthorised cameras may be used into Security Controlled Areas. Photos may only be taken upon approval of an application to take photos Cell phone with cameras facilities will be allowed onsite if the owner signs the Declaration form available at Security for that purpose. Cell phone cameras may not be used to take photos of any kind of the Plant without written approval. Any person that contravenes this rule may face prosecution and or disciplinary actions.
- b) Photos may only be taken on site after a written application, as per annexure 11, was approved by the *Service Manager*.

5.2.2 Alcohol /Drugs

- a) No alcoholic beverages of any kind whatsoever may be brought into the Security Controlled Area. Authorization to bring / use of alcoholic beverages at Majuba Power Station is not allowed.
- b) No dealing of alcohol and / or drugs will be on /or into the security-controlled area at Majuba Power Station.

- c) No drugs or any other illegal narcotics may be used or possessed at Majuba Power Station.
- d) Compulsory alcohol testing will be done on access control points to the Affected Property (Majuba Power Station) which are manned by Security having all the equipment's for Alcohol testing. Compulsory alcohol tests will also be carried out at incident / accident scene as well as at any other point(s) as identified and instructed by the *Service Manager*.
- e) No person will be allowed to enter the Security controlled area if a breathalyser test was carried out, indicated that the test person is under the influence of alcohol.
- f) A **0.000** % BAC (Breath Alcohol Consumption) rule will apply at Majuba Power Station.
- g) Details of Eskom & *Contractors* Employees, temporary workers and visitors that were found to be under the influence of alcohol / drugs, will be logged into a data base for future reference

5.2.3 Private Vehicles / Transport of Visitors / Employees / *Contractor* Employees

- a) No unauthorised private vehicles will be allowed into the Security Controlled Area. All vehicles including Eskom vehicles, *Contractors* vehicles, private vehicles, taxis and busses will be issued with Permit valid for the period indicated on that permit.. No vehicle without an authorised permit will be allowed into the security controlled area. All permits will be issued by the Eskom Security Department only. Valid permits will only be issued upon submission of a written approved application, to the Eskom Security Department.
- b) All vehicles entering the Security area shall be inspected for roadworthiness by trained Security Officer. Any unroadworthy vehicle shall be refused access onto the Affected Property.
- c) All Occupants in the vehicles shall wear safety belts. If any occupants in the vehicle do not comply with this rule, he / she will friendly be asked to get out the vehicle and will not be allowed to enter the Affected Property.

- d) No person may be transported at the back of the bakkie, truck or any construction vehicle, except where written authorization was given by the *Service Manager.*,

5.2.4 Firearms

- a) No private firearms are allowed into Eskom Affected Properties. Unless the person is in possession of the fire arm concerned or is a member of the state organ such as South African Police Service (SAPS) , South African National Defence Force. (SANDF).

5.2.5 Searches

- a) Body searches will only be done if such a need was identified. Female will only be searched by female security personnel and males will only be searched by male security personnel. All body searches shall be done in privacy, with dignity and respect.
- b) All Eskom and *Contractor* employees, temporary workers, visitors, agents and all vehicles and or any other container, irrespective of its nature, shall be subjected to searches, before entering onto and exit from the Security Control Area.
- c) All searches shall be done in accordance with the rules as stipulated in the Criminal procedure Act (Act 51 of 1977) and Eskom site procedures. All searches shall be done with the needed respect and dignity at all times.
- d) Any person refusing to subject him / herself, their passengers, vehicles or containers for searching by any Security member on duty, before leaving the Security Controlled Area, will not be allowed to leave the Affected Property. SAPS will then be called to give assistance, unless reasonable explanation can be given why the search cannot happen.

5.2.6 Found Property

- a) All items that have been seized at the Security control duty point will be treated as found property.

5.2.7 Job seekers

- a) No jobseeker shall be admitted into the Security Controlled Area at Majuba Power Station. Unless those will only be allowed on appointment, or the advert indicate dropping of the applicants application be onsite and will then be treated as a visitor.

- b) No recruitment shall be allowed within the demarcated area outside of any entrance points or security control points at Majuba Power Station.

5.2.8 Use of Handheld scanners

- a) All Eskom and *Contractors* employees, temporary workers, visitors, SAPS members, vehicles and or any other equipment and permits, that were fitted with a barcoded sticker, irrespective of its nature, will be subjected to be scanned with a handheld scanner before entering and exit the Security Control Area at Majuba Power Station.

5.2.9 Deliveries (Regular / Daily Deliveries)

- a) All deliveries at the Affected Properties shall be offloaded at the designated areas, as per prior arrangement by the end user.
- b) The Security Officer, at the Security Control Point, to confirm all deliveries with the end user before the delivery vehicle may enter the Construction area.
- c) The *Contractor* shall collect all first-time visitors and accompany them for the duration on site.
- d) All delivery vehicles will be inspected for roadworthiness and any vehicle not complying shall be refused access. Induction on Life Saving Rules will be given by trained security staff at the access point.

5.2.10 After hours deliveries

- a) After hours will be treated as from **17:15pm to 06:00am** on Monday to Friday and from **17:15pm** on Friday until 06:00am on Monday.
- b) After hour deliveries will only be allowed on prior arrangement with the Eskom *Service Manager*, Security Officer Operations and end user. If prior arrangement was made, the end user shall be contacted for assistance, by the Security Officer on duty.
- c) No vehicle to be allowed access afterhours, unless with prior arrangement between the end user and the Eskom *Service Manager* or Officer Security Operation.
- d) The *Contractor* representative must be present on site before access shall be granted. The delivery vehicle to be escorted only after the necessary induction was completed. If the *Contractor* representative is not available to escort the delivery vehicle will not be allowed onsite for delivery purposes.

- e) All other general access control rules with regards to access permits, scanning and searching will still apply.

5.2.11 Eskom and *Contractor* Employees

- a) All Eskom and *Contractor* employees will be controlled by means of access photo permits or temporary permits issued to them by Eskom Security.
- b) Only Eskom issued permits with barcodes will be allowed to gain access onto Majuba Power Station and no other permit, letter or any document issued to the holder will be accepted for access.
- c) Visitor's slips or name tags will be allowed as issued by the Security Department of the Affected Property.

5.3 People restrictions, hours of work, conduct and records

- a) The contaminated waste shall be loaded, transported to the registered hazardous landfill site within the prescribed working time between 07H00 and 17H00, Monday to Friday; No loading will be permitted outside of the prescribed times not unless prior arrangement has been made with the Service Manager or his delegate.

5.4 Health and safety facilities on the Affected Property

The *Contractor* shall at all times adhere to the Affected Properties onsite policies, procedure and regulations. Reference is made to Part C3.1.4 of the Service Information. There are no health and safety facilities on-site. The *Contractor* shall make his own arrangements for site medical facilities and fire-fighting facilities

5.5 Cooperating with and obtaining acceptance of Others

The Oil Spill Clean-up and Remediation Services for Majuba Rail shall not prevent the *Employer* and Others to have access to the area or about the service prior to completion. Such access by Others shall not relieve the *Contractor* from liability for the completion of the services in accordance with the Service Information and in terms of this contract.

5.5.1 Interfacing with Others

The *Contractor* may be required to liaise with Others (Farmers, Other *Contractors* etc.) besides the *Employer*. The *Contractor* shall be responsible for these interactions and where possible, the *Employer* shall attempt to assist the *Contractor*. However, the *Contractor* is to note that he shall be solely liable for these interactions when they are required.

5.5.2 Accommodation of Traffic

The *Contractor* shall ensure that his works does not cause traffic in the *Employers* Affected Property, as they may be Other *Contractors* working in the same *Employers* vicinity. Such access by Others shall not relieve the *Contractor* from liability for the completion of the services in accordance with the Service Information and in terms of this contract.

5.6 Records of *Contractor's* Equipment

The *Contractor* shall have a record for all his equipment brought to the Affected Property for the Purposes of executing the Contract.

5.7 Construction Equipment

All construction equipment of the *Contractor* shall be inspected upon arrival on the Affected Properties in order to get the necessary documentation to access Affected Property and for Health, Safety and environmental purposes.

5.8 Equipment provided by the *Employer*

The *Employer* will not provide any equipment for the execution of the contract to any of the Affected Properties.

5.9 Site services and facilities

5.9.1 Provided by the *Employer*

Facilities and Services Provided by the *Employer*

- a) The *Employer* will not provide any facilities to be used by the *Contractor* on the Affected Properties

5.9.2 Provided by the *Contractor*

During the execution of the service at the Affected Properties, the *Contractor* shall maintain a suitable office if required at the Affected Property. During the execution of the service at the Affected Properties, the *Contractor* shall maintain a suitable office if required at the Affected Property.

- a) **Other Facilities and Services**

The *Contractor* shall provide all facilities and services required for completion of the services as detailed in the Services Information.

b) Fire Fighting and General Equipment.

The Contractor shall make his own arrangements for fire-fighting equipment and any other equipment's required for the removal of contaminated waste material at the Employers Affected Property

The Service Manager will carry out routine site inspections of finished work as well as of work in progress. The Contractor shall allow access to the works for such routine inspections.

Advertisements and Publications

All advertisements and/or publications related to this Project shall first be accepted by the Service Manager prior to its release.

c) Site Usage

Working Areas

The extent and outline of the works area that may be used by the Contractor in carrying out the service shall be agreed with the Service Manager and the Employer's Environmental Officer.

d) Permits

The Contractor is required if applicable to make arrangements to obtain permits for the provision of services with any local authorities.

e) Liaison with Statutory Authorities and/or Land Owners

The Contractor shall be responsible for liaising with and ensuring compliance with the requirements of the appropriate statutory authorities in carrying out the services.

f) Use of the Works Before Completion has been Certified

It is anticipated that the Employer may require use of or take over part of the works before completion of the services. This shall be confirmed by the Employer.

g) **Certifying Completion**

The Contractor shall advise the Service Manager at least one (1) week ahead of the date on which the Contractor expects the works to be considered completed in terms of the TSC, to permit timeous arrangements to be made for a formal inspection of the services.

h) **Communication with Eskom Construction Management Department / Site Maintenance Schedule**

All Project communication related to the services shall be addressed to the Service Manager. The Contractor will be expected from time to time submit a planned draw-off schedule of the material to be collected at Majuba Power Station on a weekly basis in order to keep track of the loaded cubes to be disposed of .

5.10 Hook ups to existing works

Minimum Requirements to satisfy *Employer's* Objectives:

The Contractor must provide the services as listed in clause Part C 3.1 and shall comply with the relevant Road Traffic Management Act, Regulation and any other laws, which govern the transportation of goods on the South African Roads. .

Further, the Contractor shall meet, as a minimum the following requirements as listed below, but detailed elsewhere in the document:

(i) Compliance to the *Employer's* Life Savings Rules:

- Buckle Up,
- Hook Up at Heights,
- Open, Isolate, Earth, Test, and/ or Insulate before touch,
- Permit to Work and
- Be Sober

(ii) Daily Mandatory Alcohol Testing prior to accessing site the Affected Property.

(iii) Weekly Reports for aggregate haulage. (etc.)

(iv) All work and services provided are to comply with the relevant Occupational Health and Safety Act and Environmental legislature but not limited to

Interfacing with Others

The *Contractor* may be required to liaise with Other's (Farmers, Other *Contractors* etc.) besides the *Employer*. The *Contractor* shall be responsible for these interactions and where

possible, the *Employer* shall attempt to assist the *Contractor*. However the *Contractor* is to note that he shall be solely liable for these interactions when they are required.

5.11 Tests and inspections

5.11.1 Description of tests and inspections

No test and inspection are required for the system.

5.11.2 Materials facilities and samples for tests and inspections

N/A

6) Programming (Plan) constraints

The *Contractor's* work programme shall be submitted to the *Service Manager* in terms of Clauses 21.2 and 21.3 of the TSC, and Part C1.2 Contract Data – Part One. The *Contractor's* work programme shall be submitted in Primavera Planner Schedule or Microsoft Project format for ease of transfer and presentation.

The *Contractor* submits updated computer files on a weekly basis, or at any other time as required by the *Contractor* or as instructed by the *Service Manager*.

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

The appointment of key personnel shall be in terms of Clause 24 of the TSC and as a minimum, the Contractor shall nominate a Director / Senior Manager, a Contract Manager and a Site Manager, subject to the acceptance of the Service Manager, refer Part C1.2 Contract Data– Part Two.

The *Contractor* is also required to submit a preliminary organogram of all key persons including subcontractor's at tender stage and after contract award.

The organogram submitted at tender stage is required to contain the following persons as a minimum:

- Site Manager
- Health and Safety Officer
- Environmental Officer

6.2 Invoicing and payment

Within one week of receiving a payment certificate from the *Service 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 *Service Manager's* payment certificate.

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

The Contractor shall address the tax invoice to and include on each invoice the following information:

- Invoice addressed to Eskom Holdings SOC Limited

- Invoice should read 'Tax Invoice'
- Company VAT registration number
- Eskom VAT Number 4740101508
- Invoice Number
- Purchase Order Number
- *Contractor* Name and Address
- VAT to be indicated separately
- Order numbers to be invoiced separately
- Invoices to be delivered not later than last day of month of assessment
- Invoices shall be delivered by the *Contractor* to the following email address:
invoicesgrpcapitalOTH@eskom.co.za

Invoice date to be same month (not later than the last day of the same month) of assessment. Incorrect claims (invoices) should be cancelled with a credit note referring to the incorrect invoice and issue a new invoice.

6.2.1 Schedule of Actual Costs and Accounts

The Contractor shall submit a detailed monthly schedule of his actual costs with all the necessary backup information at the monthly measurement meeting, for review by the Services Manager. The various schedule items as detailed in the Schedule of Cost Components, shall be submitted in a spreadsheet format, itemized in terms of People, Equipment, Plant and Materials, charges, and manufacture and fabrication. Schedule items shall be grouped into work area activities as outlined in the bill of quantities, with such work area activity groupings referenced against the bill of quantities item numbering.

Before each successive monthly measurement meeting (i.e. on a weekly basis), the Contractor shall submit to the Service Manager all current (or cumulative to that assessment date) backup documentation for acceptance. Backup documentation shall include, but not limited to: all calculation sheets, citing each completed task and item in the Price List, drawings, etc.; acceptance of completed work payment purposes, including confirmation of attainment of each criteria set out either in the specification or any other document which this contract prescribes.

Following the monthly measurement meeting, the Contractor shall present a detailed final schedule (with revisions agreed to at the monthly measurement meeting incorporated), including the necessary backup documentation, to the Service Manager for final checking. Once accepted by the Service Manager, he will submit it to the Service Manager. This will

then be used by the Service Manager to assess the amount due in terms of Clause 50 of the TSC.

The final format and layout of this monthly schedule as well as the level of detail of backup information required are to be agreed between the Service Manager and the Contractor.

Clause 52 of the TSC shall apply in terms of accounts to be kept by the Contractor to verify the above monthly schedule of actual costs.

6.2.2 Records and Returns

This Section relates to the preparation and submission of records and returns by the Contractor, to be submitted to the Service Manager in a form that is acceptable to him.

- At Start Up of the works
- Prior to First Commencement of a Particular Work Activity
- On Completion of a Work Activity or Part Thereof
- Daily
- Weekly
- Monthly
- On Completion of the works

6.2.3 Payment Arrangements

Part C1.2 Contract Data – Part One, Clause 5 refers.

6.3 Contract change management

TSC Clause 6 – Compensation Events shall refer.

6.4 Records of Defined Cost to be kept by the *Contractor*

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

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

6.5 Insurance provided by the *Employer*

The NEC TSC Defined Cost shall apply; precisely the Shorter Schedule of Cost Components shall apply as provided thereon.

6.6 Health and Safety

Reference is made to Part C3.1 Scope of Service (Eskom's Minimum Requirements for a Health and Safety Specification for Oil Spill Clean-up and Remediation Services for Majuba Rail.

The Contractor shall put in place and maintain a risk management plan at commencement of the service, subject to the acceptance of the Service Manager. The risk management plan shall be structured and implemented in such a way that baseline risk assessments are submitted to the Service Manager prior to commencement of any work activity. A baseline risk assessment shall give consideration to:

- a) Identification of hazards associated with the scope of work,
- b) Any abnormal conditions relating to the work to be performed,
- c) The exposure limits of personnel using tools, equipment, machinery, etc.;
- d) Environmental hazards and conditions;
- e) The consequences should such hazards occur and the severity thereof;
- f) The control and monitoring measures which need to be in place; and
- g) In case control measures are inadequate or insufficient, the risk mitigation shall be implemented.

6.7 Training workshops and technology transfer

N/A

6.8 Things provided at the end of the *service period* for the *Employer's* use

6.8.1 Equipment

N/A

6.8.2 Information and other things

Health and Safety File. Reference is made to the Health and Safety Specification issued by the *Employer* for the removal of Oil Spill Clean-up and Remediation Services for Majuba Rail.

6.9 Management of work done by Task Order

N/A

6.10 Environmental constraints and management

The *Contractor* shall comply with the environmental criteria and constraints stated in Part C3.2.2

7) Management

7.1 Role of the *Service Manager*

The role of the *Service Manager* within the TSC is to manage the contract for the *Employer* with intentions of achieving the *Employer's* objectives for providing the service. The TSC places considerable authority in the hands of the *Service Manager*. It assumes that he has the *Employer's* authority to carry out the actions and make decisions which are required of him.

7.2 Planning and Programming

The Contractor's work plan shall be submitted to the Service Manager in terms of Clauses 21.2 and 21.3 of the TSC, and Part C1.2 Contract Data – Part One. The Contractor's service plan shall be submitted in Primavera Planner Schedule format or Microsoft Project for ease of transfer and presentation.

7.3 Quality Plans and Control

The Contractor shall be responsible for the quality management of their services used for completing the service. Within 14 days of the commencement of the Contract, the Contractor shall submit to the Service Manager two copies of his Quality Plan describing the procedures by which quality control and quality assurance of the work will be ensured.

The *Contractor* must ensure compliance to the following:

- The *Contractor* shall ensure compliance to QM – 58, Contract Quality Requirements Specification.
- The Contractor shall ensure that all work and services are carried out by suitably competent persons whose competency has been submitted and verified by the Service Manager.
- All work carried out will be verified by the Contractor's Quality rep before it is declared complete by the Service Manager.
- The Contractor shall identify all the risks that might affect the contract, discuss them with the Service Manager, put mitigation in place and monitor the progress thereof.
- The Contractor must have a tally sheets for the recording of the daily services provided.

Material to be transported by the *Contractor* must be free of debris and any other foreign material upon delivery at the area identified by the *Service Manager* in the Affected Property.

The *Contractor* will be required to provide the *Service Manager* with tally sheets for the material loaded at the *Employer's* Affected Property. Such tally sheets shall be submitted weekly to the *Service Manager* or as agreed. This above statement shall also apply to the subcontractor employed by the *Contractor* for the purposes of executing the services.

7.4 Environment

Environmental Management

- a) The Operational Environmental Management Programme (hereafter referred to as the document providing mitigation measures for all activities associated with the operational phase of the Affected Properties. The document is a law binding document under the National Environmental Management Act (Act No 107 of 1998) [NEMA], and provides management responsibilities for the implementation, management and monitoring of this document during the entire operational life-cycle of the Affected Properties.
- b) Site demarcation: The *Contractor* shall demarcate his office site, be restricted to that specific area and take full responsibility to restore the area to its original condition before the contract commenced;
- c) Waste management: The *Contractor* shall dispose of all waste off-site at an official waste disposal facility;

Note, prior to tax invoice submitted

- The *Contractor* submits a claim to the *Employer* for assessment
 - The *Contractor* must submit all supporting documents if foreign currency is used.
 - The Supply Manager prepares a payment certificate for the *Contractors* acceptance based on the assessment.
- d) Sanitation: The *Contractor* shall provide an appropriate temporary sanitation facilities for his employees;
 - e) Dust control: The *Contractor* shall be responsible to apply effective dust control measures;
 - f) Fire prevention: It shall be the responsibility of the *Contractor* to prevent veld fires at all times during the contract; and
 - g) The *Contractor* shall take full responsibility for protecting the natural environment and eliminating or minimising the negative impacts of executing the works on the environment during loading, transportation and delivery of the service. Nothing specified herein shall relieve the *Contractor* of any obligations or responsibilities in this regard.

- h) The Contractor shall implement an Environmental Policy, in line with various statutory regulations, the Operational Environmental Management Plan. The Environmental management plan shall be submitted to the Service Manager within 14 days after the awarding of the contract. Upon the Service Manager's acceptance, the Contractor shall immediately implement the policy and any amendments, and keep it in operation for the duration of the contract.
- i) The Contractor shall keep the Environmental management plan updated in accordance with his Quality Management Procedures and make amendments as required by the Service Manager and the circumstances prevailing at the time. The Contractor shall immediately supply the Service Manager with a copy of an updated Environmental Management Plan which shall clearly indicate the revisions undertaken.

7.5 General

- a) The *Contractor* shall conduct his activities so as to cause the least possible disturbance to the existing amenities, whether natural or man-made, in accordance with all the currently applicable statutory requirements. Special care shall be taken by the *Contractor* to prevent irreversible damage to the environment. Disturbance or disruption of the daily lives of local communities shall be avoided.

- b) **Existing Services**

Existing services (Telkom and Eskom may be affected by this contract).

The *Contractor* will be responsible to repair any damage to services, known and unknown, and requirements for working in close proximity to services etc. The *Contractor* will be required as per the reinstatement procedures to notify about the repair of damage to services and how they will pay penalties applicable to the damage of services.

- c) The *Contractor* shall take adequate steps to educate all members of his workforce as well as his staff on the relevant environmental laws and regulations. The *Contractor* shall supplement these steps by prominently displayed notices and signs in strategic locations to remind personnel of environmental concerns.

The *Contractor* shall submit within 14 days after the starting date a Method Statement containing details of all site layouts and environmental protection measures proposed to the *Service Manager* for review and acceptance.

These shall include but not limited to:

- a) Office establishment layout;
- b) Workshops' storage areas layout;
- c) Pollution prevention measures;
- d) Refuse disposal layout (where applicable);

7.6 Temporary Services and Facilities

- a) Temporary pipelines, power lines, telephone lines and other temporary services and facilities shall be located in a manner which will cause the least disturbance and disfigurement to the environment. Power lines shall be suspended below insulators and be of such design as to prevent the electrocution of birds to the greatest extent possible.
- b) All fuel storage tanks shall be bunded to 110 % of the total storage capacity. Fuel dispensing areas and workshop areas shall be provided with concrete hard standing draining to oil separators. This will also apply to other areas with pollution potential.
- c) Vehicle cleaning shall be undertaken in designated wash bays, which have an impermeable floor and are bunded to contain runoff and direct in onto a sump. Oil and diesel will be skimmed off the sump water and recycled or disposed of in the correct manner.
- d) Vehicles worked on outside the wash bays will have portable drip trays placed under them to catch oil and diesel which may leak from the vehicles.

7.7 Management of Traffic

- a) The *Contractor* shall ensure that his works does not cause traffic in the *Employers* Affected Properties as they may be Other *Contractors* working in the same *Employers* vicinity. Such access by Others shall not relieve the *Contractor* from liability for the completion of the services in accordance with the Service Information and in terms of this contract.

7.8 Protection of Rivers, Streams and Watercourses

- a) All rivers, streams and watercourses shall be protected from direct or indirect spills of pollutants such as garbage, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and wastewater or organic material resulting from the *Contractor's* activities. In the event of a spill prompt action shall be taken to clear polluted or affected areas.
- b) The *Contractor* shall not work within river flood lines, streams, watercourses and wetlands without the written acceptance of the *Service Manager* as required for the execution of the work.

7.9 Refuse and Waste Control

- a) The management of solid waste on Affected Property shall be strictly controlled and monitored. Only licenced waste disposal landfill sites shall be used.
- b) The quantities of waste generated on Affected Property shall be minimised;
- c) Labelled recycling bins shall be used and waste separated where possible. In addition, a recycled-material collection schedule shall be established and the bins shall be collected regularly;
- d) Eating areas for the service staff shall be designated and supplied with waste bins.
- e) No on-site burying or disposal or unauthorised burning of any waste materials, vegetation, litter or refuse shall occur;
- f) Bins provided by the *Contractor* must be sufficient to store the solid waste produced on a daily basis;
- g) The bins shall be emptied at least once a day;
- h) Waste from bins may be temporarily stored on Affected Property in a central waste area that is weatherproof and scavenger-proof and which the *Service Manager* has accepted;
- i) All solid waste shall be disposed of off site, at a licenced landfill site. The *Contractor* shall supply the *Service Manager* with a certificate of disposal (waste manifest) ; and
- j) Waste shall be separated into domestic waste, rubble, scrap metal, oil and grease and hazardous waste and dealt with in the following manner:

i. Domestic waste

Metal refuse bins to BS 792 or equivalent plastic refuse bins, all with lids, shall be provided by the *Contractor* for all buildings. Refuse shall be collected and removed from all facilities on the Affected Property at least twice per week. Domestic Waste shall be transported to the approved refuse disposal site off site in covered containers or covered trucks.

ii. Organic waste

From food preparation and eating areas shall be collected and removed daily. Organic Waste shall be disposed of as per Domestic Waste.

iii. Building/Construction waste.

Inert building/construction rubble shall be disposed at a licenced landfill sites.

iv. Scrap metal

Scrap metal shall be disposed off-site.

v. Used oil and grease

Used oil and/or grease shall be removed from site to a licenced oil recycling company.

vi. Hazardous waste

All hazardous waste shall be disposed of in a licenced hazardous waste disposal site and safe disposal certificate supplied to the *Service Manager*.

7.10 Format of Communications

All instructions or requests need to be confirmed in writing through:

- Site instructions
- Requests for inspections
- Task orders etc.

7.11 Key Personnel

The appointment of key personnel shall be in terms of Clause 24 of the TSC and as a minimum, the *Contractor* shall nominate a *Director / Senior Manager*, a Contract Manager and a Site Manager, subject to the acceptance of the *Service Manager*, refer Part C1.2 Contract Data– Part Two.

The *Contractor* shall provide the *Employer* with a detailed organogram of all staff and management on the Contract. This must be revised quarterly and must reflect any changes to the staff and management structure. The *Employer* reserves the right to audit and verify the structure.

8) Rehabilitation and Landscaping Specification

8.1 Definitions

“Shaping”	Means finishing all slopes that do not form part of the permanent works so that they do not exceed a maximum gradient of 1:3, unless otherwise directed by the <i>Service Manager</i> .
“Trimming”	Means bringing the existing or previously shaped ground to a smoothly flowing surface with the final levels generally following the original topography.
“Scarifying”	Means loosening the soil in areas which has become hard and compacted and which needs to be loosened in order to facilitate re-vegetation.
“Ripping”	Means loosening the soil in areas too hard to scarify.
“Alien Species”	Means any species introduced deliberately or accidentally into South Africa by human beings at any time during human.
“Invasive Species”	Means any species ‘whose establishment and spread outside of its natural distribution range – (a) Threaten ecosystems, habitats or other species or have demonstrable potential to threaten ecosystems, habitats or other species; and (b) May result in economic or environmental harm or harm to human health.

8.2 Rehabilitation Methodology

The methodology described below is deemed suitable with emphasis on shaping and re-vegetation to manage runoff in a manner that will minimize the potential for erosion and scouring and subsequent detrimental impacts on the watercourses. All rehabilitation shall be carried out in accordance to the details provided below as well as the National Environmental Management Act (NEMA).

The rehabilitation methodology described includes but is not limited to the followed:

- On decommissioning, disused and defunct infrastructure shall be demolished, including but not limited to the removal of power cables, boreholes, pipes, concrete slabs etc.

- The Site shall be rehabilitated and the available stockpiled soil will be used for rehabilitation in a manner that minimises the potential for ponding and erosion while the area is re-vegetated
- Disturbed areas shall be rehabilitated through landscaping in a manner that minimises potential for ponding and erosion, with soil replacement and the establishment of vegetation. Where practical, rehabilitation shall take place during construction, operational and decommissioning phases.
- Landscaping shall be undertaken to restore the natural topography of the areas that have been disturbed or, at least, to reduce slopes to stable gradients.
- The limited quantity of top soil which has been conserved in stockpiles shall be used strategically in the rehabilitation of disturbed land. Where there is excess stockpile material, stockpiles are to be shaped to form artificial mountains, whilst maintaining the natural land formation. Where it is impracticable, material shall then be transferred to areas on site where the formation of artificial mountains is possible. It is to be noted that topsoil shall be sourced by the Contractor for the purposes of rehabilitation.
- Vegetation establishment in disturbed areas shall be undertaken as soon as is practical, within the growing seasons as prescribed in the Majuba Rail EMP. A consideration shall be taken about water, which is a scarce resource, while its availability is a primary constraint.
- The top soiled areas shall be re-vegetated using the methods stipulated in Rehabilitation and Landscaping Specification. In general, initial re-vegetation will be undertaken using a mixture of commercially available suitable indigenous seeds that will germinate reliably (high seed viability), followed by the establishment of any indigenous plants which may still be available in the nursery. The species used will be selected on the basis of their ability to bind and cover soil (to afford effective erosion protection) and their tolerance of the prevailing environmental conditions.
- Prior to re-vegetating, the *Contractor* shall collect, test and analyse soil samples. All analysis shall be submitted to the *Service Manager* for acceptance and where necessary the soil shall be fertilised in accordance with the findings of the soil analyses.
- A number of different methods of re-vegetation are available (e.g. hydro-seeding, hand seeding and hand sowing) and the most appropriate method shall be selected to optimise re-vegetation and minimise potential for erosion.

- Following re-vegetation, the disturbed sites shall be monitored and maintained until an acceptable cover has been achieved and accepted by the *Service Manager*.
- The spread of invader species on rehabilitated areas shall be controlled and removed until the vegetation cover is capable of providing sufficient natural weed and erosion controls, as accepted by the *Service Manager*.
- During decommissioning and operational phase, most ground and surface water monitoring may cease. However, some monitoring points shall remain and shall be monitored until it can be demonstrated that there is no deterioration in quality related to the decommissioned project area. This shall be as directed by the *Service Manager*.

Notwithstanding the above, the *Contractor* shall submit a method statement for each activity to the *Service Manager* for acceptance prior to work commencing on site.

8.3 Natural Land Formation

The remaining material at the selected disposal areas will therefore need to be rehabilitated. This rehabilitation will necessitate the shaping of these areas to resemble the natural land formation (NLF) and the incorporation of drainage lines.

A pre-requisite of the natural land formation rehabilitation necessitates non-presence of any toxic/ pollutant material present in the coal material as defined in the Integrated Water Use License (IWUL).

Where the *Contractor* forms artificial mountains and shapes and rehabilitates areas to NLF, drainage lines and any buried material are to be indicated on the as-built drawings produced by the *Contractor* for this area.

8.4 Materials

8.4.1 Fertiliser

For areas requiring temporary cover, fertiliser mix in Table 1 below shall be used.

Table 1: Fertilizers Mix for Areas Requiring Temporary Cover

Fertiliser	Application rate (kg/ha)
2:3:2 (22)	150
Super phosphate	200
Total	350

For areas requiring permanent cover, the soil will be tested by a commercial laboratory (to be appointed by the *Contractor*) to determine the appropriate fertiliser mixture. The nominal application rates are outlined in Table 2.

Table 2: Fertilizers to be used for Areas Requiring Permanent Cover

Fertiliser	Nominal Application rate (kg/ha)
Dolomitic lime	2 500
Super phosphate	1250
Limestone ammonium-nitrate	250
2:3:2 (22)	250
Monophosphate	250
3:2:1 (22)	500
3:2:1 (25)	500
2:3:4 (30)	500

The fertiliser shall be uniform in composition, free-flowing and suitable for application with approved equipment. It shall be delivered to the Site in bags or other convenient containers, each of which shall be fully labelled and bear a clear indication of the contents, the trade name or trademark, the producer's name and a warranty with regard to the contents by the producer.

The Contractor shall provide the Service Manager with copies of invoices for all fertilisers used on the Project. Invoices for fertilisers shall show the grade provided.

8.4.2 Seed

The seed mix for the vegetation of areas requiring temporary or permanent cover are summarised in Table 3 and Table 4 respectively.

Table 3: Seed Mix for Areas Requiring Temporary Cover

Species	Application Rate (kg/ha)
Chloras Gayana (Rhodes)	5
Eragrostis tef	5
Total	10

Table 4: Seed Mix for Areas Requiring Permanent Cover

Species	Application Rate (kg/ha)
Chloras Gayana (Rhodes)	5
Eragrostis tef	5
Total	10

8.4.3 Anti-Erosion Compounds

Anti-erosion compounds shall consist of an organic or plastic material in suspension, which can be sprayed on the soil to bind and protect it against erosion, such as "hydropam" or a similar compound approved by the Service Manager. Where directed by the Service Manager these anti-erosion compounds shall be used at a rate of 150kg/ ha.

8.4.4 Topsoil

Where topsoil is required it shall be material which was necessarily removed from the construction or borrow pit sites as part of the construction activities, and stockpiled for use in rehabilitation. Topsoil shall be free of large roots, stones, refuse, stiff or heavy clays and noxious seeds, which would adversely affect its suitability for planting vegetation.

Topsoil shall be stripped and stockpiled and these stockpiles maintained. Topsoil shall not be compacted in any way, especially by vehicles riding over it. Where it is essential to drive a vehicle over the topsoil (once it has been re-spread), as approved by the Service Manager, the contact pressure shall not be greater than 1500kg/m².

8.4.5 Storage Capacity for Plant Material

The storage capacity provided and amount of material stored (of whatever sort required for the completion of the works) shall be sufficient to ensure that no interruption to the progress of the work is occasioned by lack of materials.

8.4.6 Procurement and Handling of Seed

8.4.6.1 Procurement of Seed

Seed shall be purchased from a reputable Contractor. All seed procured from seed suppliers shall be fresh (not more than one season old), true to species, of known origin, dried and packed as specified herein and conform with all legal requirements for seed. All seed shall be germination tested by a government approved laboratory, and copies of test certificates submitted to the Service Manager. The seed mixture shall not be delivered to Site pre-mixed, but seed from sealed bags shall be mixed on Site in the required proportions.

8.4.6.2 Delivery of Seed

Seed shall be delivered to the Contractor's site storage facility monthly as and when ready, but shall only be delivered in consignments of 50 kg or more. All the seed bags, full or partly full shall conform to the Specifications at time of delivery.

8.4.6.3 Storage of Seed

Seed shall be stored in a cool, dry and rodent free facility. The Contractor remains fully responsible for the seed until sowing and shall insure the seed while stored for the full replacement value.

8.4.6.4 Replacement of Species

Should, for reasons beyond the control of the Contractor, the procurement of a specific seed species not be possible, replacement with seed from a similar species may be requested. Such replacement shall only occur with the written approval of the Service Manager. Rates tendered for the original species shall remain applicable. Should the Service Manager not agree to replacement of species, the unobtainable species should be omitted from the seed mix and no compensation for such seed will be applicable.

8.4.7 Earthworks

Where shaping of an area results in the movement of material greater than 500mm thick, the Contractor shall associate this work with earthworks. The Contractor is required to inform the Service Manager during a change from landscaping to earthworks.

8.4.8 Landscaping and Re-Vegetation

Where shaping of an area results in the movement of material less than 500mm thick, the Contractor shall associate this work with landscaping

8.4.8.1 Preparation of Ground Surfaces

Prior to landscaping and re-vegetation of the Site, the Contractor shall remove all remnants of building materials, concrete foundations, timber, coal, steel, corrugated sheeting and other foreign debris from the Site.

8.4.8.2 Shaping

All slopes which do not form part of the Permanent Works shall be graded so that no slope exceeds a maximum gradient of 1:3 or as otherwise directed by the Service Manager. Contour drains shall be provided to control erosion where required by the Service Manager.

Excavation and fills for Temporary Works and spoil disposal shall be formed in such a manner that the final profile shall appear as a natural extension to the adjacent, undisturbed ground profiles.

8.4.8.3 Trimming

Trimming shall consist of bringing the existing or previously shaped ground to a smoothly flowing surface with the final levels generally following the original surface as directed by the Service Manager. Both mechanical and hand trimming shall be undertaken

8.4.8.4 Scarifying

Prior to the application of topsoil, the ground surface shall be scarified by hand, plough or a mechanical ripper to a depth of approximately 150mm to breakdown soil clods.

8.4.8.5 Ripping

Compacted soil, which has become too hard to scarify, shall be ripped with a mechanical ripper to a depth of 200mm. No section of ground shall remain undisturbed after ripping. In limited areas where use of mechanical ripping is not practical the compacted soil shall be loosened by manual methods using forks and picks to the satisfaction of the Service Manager.

8.4.8.6 Topsoiling

Before placing topsoil, the Contractor shall remove all visible weeds from the placement area and from the topsoil. The stockpiled topsoil shall generally be spread evenly over the prepared surface to a depth of 75 - 150mm on flat ground or to a minimum of 75mm on slopes of 1:3 or steeper.

8.4.8.7 Soil Stabilisation

On all landscaped and topsoiled areas straw or similar approved shall be utilised as a binding material to stabilise the soil during re-vegetation and rehabilitation of the Site. Straw shall consist of natural seed-free, dried fibres of hay, chaff or tall grass clippings (from the surrounding environment) of various lengths between 50mm and 400mm, delivered to Site in standard rectangular bales and shall be applied evenly by hand at a rate of 1 bale per 10m² over the area to be re-vegetated. It shall then immediately be rotated or manually mixed into the upper 100mm layer of soil.

8.4.8.8 Fertilising

At least 1 month prior to seeding the Contractor shall apply dolomitic lime at a rate of 1 tonne per hectare to the area to be seeded and incorporate into the top 100mm of soil by light discing or harrowing.

Fertiliser shall be added to the soil on seeding or planting. For the fertilisation of areas requiring temporary cover, 2:3:2 (22) fertiliser shall be applied with the seed mix, at the rate of 150 kg/ha and super phosphate shall be applied post germination at the rate of 200 kg/ha.

For areas requiring permanent cover, the rate of application shall be as directed by the Service Manager after the Contractor has had the opportunity of testing the requirements of the soil material in which the vegetation is to be planted. The Contractor shall arrange to test the top 75 mm of prepared surface at each working area to determine the amount and type of fertiliser required for establishing proper growth conditions for the vegetation. The sequence of fertiliser application will be dependent on the fertiliser mix and application rates identified during the soil analysis.

8.4.8.9 Preparation of Seeds

The Contractor shall soak susceptible seeds in 1:100 dilution of "FireGrow" smoke extract for one hour prior to seeding. Seed shall be removed from the solution and either be placed directly into the hydro-seeder or dried by natural air flow on clean cotton sheets for hand-seeding. Prolonged exposure to the smoke extract could damage the seeds.

8.4.8.10 Hand-Seeding and Grass Establishment

Seeding shall only take place between mid-October and mid-March.

Prior to seeding, the soil shall be prepared as follows:

Apply fertiliser at the rate of P at 80kg/ha; K at 100kg/ha including Zn in the mix.

Incorporate into the soil by discing or harrowing and roll using a Cambridge roller.

Form furrows 80mm deep in rows approximately 150mm apart running parallel to the contour of the finished surface.

The seed mixture as specified shall be mixed with two parts per volume of clean dry plaster sand, then divided in half and applied evenly in two successive applications, one after the other, by means of an approved hand-seeding machine (known colloquially as a “tefsaaier”). On completion of the seeding, the surface shall be rolled again using a Cambridge roller.

When the seed has germinated apply fertiliser LAN at a rate of 200kg/ha.

When the grass comes into flower mow or slash the grass, remove cut grass and top dress with fertiliser LAN at 200 kg/ha. Repeat the cutting whenever the grass comes into flower but do not apply any fertiliser between mid-March and mid-October.

After every rainstorm the *Contractor* shall inspect and repair washaways and failed grass establishment by repeating the seeding process.

Any alien species which become established shall be removed and the area affected shall be re-seeded

8.4.8.11 Hydro-Seeding

Hydro-seeding, if approved by the *Service Manager*, shall be carried out using an approved hydro-seeding machine. The hydro-seeding mix shall be applied to the areas to be re-vegetated at a rate of not less than 20 kilolitres of water per hectare.

The hydro-seeder shall be capable of pumping the specified seed mix, fertilizer and anti-erosion compound (mixed in water) at the specified rates over the areas to be seeded. The slurry distribution lines shall be large enough to prevent stoppage, and the discharge line shall be equipped with a set of hydraulic spray nozzles suitable for the even distribution of the slurry on the various slopes to be seeded.

Hydro-seeding machines shall be thoroughly cleaned after each operation and before different seed mixes of different origins are introduced into it. The mixture shall be kept uniform during the seeding operation by means of a power-driven agitator.

No mixing of seed or hydro-seeding mixes shall be done without the approval of the *Service Manager*. Hydro-seeding shall only be carried out during the period September to March (after the first good rains) and the *Service Manager* shall be notified when seeding will take place.

9) Maintenance of Re-Vegetated Areas

9.1 Responsibility for Establishing an Acceptable Cover

An acceptable cover shall mean that not less than 75% of the re-vegetated area shall be covered with vegetation of the seeded species and that there shall be no bare patches of more than 500mm in maximum dimension.

Notwithstanding the fact that the method of planting, the type of seed, grass or plant used, the rate of application of seed or planting density, as specified, the Contractor shall be solely responsible for establishing and maintaining an acceptable plant cover and for the cost of replanting or re-seeding where acceptable cover is not obtained or maintained.

The establishment of an acceptable cover shall include maintaining the surface to the required slopes and levels without erosion or sedimentation, watering, weeding, fertilising, disease and insect pest control and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of the plant material on Site.

The Contractor's liability with regards to the maintenance of the vegetation shall commence when an acceptable cover as defined above has been established over the whole of the area re-vegetated and shall be not less than one year. In all cases the cover at the end of the Defects Correction Period shall not be less than acceptable cover as defined above.

9.2 Watering, Weeding and Replanting

All re-vegetated areas shall be adequately watered at frequent and regular intervals to ensure proper germination of seeds and growth until the vegetation has established an acceptable cover and thereafter as required to sustain growth. The amount and frequency of watering shall be agreed with the Service Manager.

As a guideline the Contractor shall, in the absence of adequate rainfall, water all seeded areas once weekly during the first month, and once every two weeks during the second month. Rainfall of less than 60 mm in the first month and less than 45 mm in the second month is regarded as inadequate water supply. Watering should be carried out from a tanker, using a fine nozzle spray to avoid erosion and disturbance of the vegetation. The Contractor shall supply all water required for irrigation during the establishment period and shall provide all plant necessary for the operation.

The re-vegetated areas shall be kept free of weeds. Weeds shall be controlled by means of pulling, or any other approved means.

Any bare patches where the vegetation has not taken, or where it has been damaged or has dried up, shall be re-cultivated and re-vegetated without any additional payment.

9.3 Traffic on Re-vegetated Areas

The Contractor shall not undertake any re-vegetation of areas requiring permanent cover until all operations that may require construction equipment to pass over those areas has been completed. No construction equipment, trucks or water carts shall be allowed on areas that have been re-vegetated and only equipment required for the preparation of areas, application of fertilizer and spreading of topsoil will be allowed to operate on these areas.

9.4 Erosion Control

Any runnels or erosion channels developing during the re-vegetation period or during the period for which the Contractor is liable shall be backfilled and consolidated and the areas restored to a proper stable condition. The Contractor shall not allow erosion to develop on a large scale before effecting repairs and all erosion damage shall be repaired as soon as possible and, in any case, not later than three months before the termination of the defects correction period. All topsoil or other material accumulated inside drains shall be removed at the same time. Topsoil washed away shall be replaced.

The Contractor shall ensure that erosion of rehabilitated areas is not caused by pedestrian access.

10. List Annexures

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

Document number	Revision	Title
		<i>Water Sample results and sampling points</i>
		<i>Wetland delineation and Spill extent map</i>



(Eskom Holdings SOC Limited Reg No 2002/015527/30)

TENDER NUMBER:.....

FOR

OIL SPILL CLEANUP AND REMEDIATION SERVICES FOR MAJUBA RAIL

PROJECT DOCUMENT

(insert date)

ISSUED BY:

PREPARED BY:

**ESKOM
CAPITAL EXPANSION DEPARTMENT
MEGAWATT PARK
MAXWELL DRIVE
SUNNINGHILL
SANDTON**

Name and Surname:

TEL:

FAX:

NAME :

ADDRESS :

TEL :

FAX: N/A



TENDER NUMBER:

FOR

OIL SPILL CLEANUP AND REMEDIATION SERVICES FOR MAJUBA RAIL

SITE INFORMATION.

TENDER NUMBER:

FOR

OIL SPILL CLEANUP AND REMEDIATION SERVICES FOR MAJUBA RAI

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C4.1 LOCALITY PLAN



Figure Error! No text of specified style in document.-1
Station.

Locality Map of Majuba Power

C4.2 Weather measurement

Table 1/4: One in ten year return weathger data obtained from SA Weather Bureau for Majuba Power Station (*Affected Property*).

	Weather measurement				
Month	Cumulative rainfall (mm)	Number of days with rain more then 10mm	Number of days with min air temp <0 deg.C	Number of days with snow lying at 08:00CAT	Wind Ash Fallout Exceeding allowable limit 1200mg/m ²
January	202	7	0	0	0
February	158	7	0	0	1
March	122	5	0	0	1
April	115	4	2	0	1
May	43	3	6	0	1
June	29	2	22	1	2
July	36	2	21	2	5
August	36	2	11	1	5
September	64	3	4	0	3
October	148	6	2	0	1
November	167	8	0	0	1
December	177	7	0	0	1