



T F R , a division of

TRANSNET SOC LTD

Registration Number 1990/000900/30

[hereinafter referred to as **Transnet**]

REQUEST FOR QUOTATION [RFQ] No BLE52257

**FOR THE SUPPLY OF: SUPPLY, INSTALLATION, TESTING AND
COMMISIONING OF RECTIFIERS, AC/DC
DISTRIBUTION PANEL, PCB CONTROL PANELS AND
POSITIVE ISOLATOR SWITCHES AT MULDERSVLEI 3
KV DC TRACTION SUBSTATION**

ISSUE DATE: 7 June 2013
CLOSING DATE: 25 June 2013
CLOSING TIME: 10:00



RFQ BLE52239

SCHEDULE OF DOCUMENTS

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF RECTIFIERS AT MULDERSVLEI SUBSTATION

Section

1. Notice to Bidders
2. Quotation Form
3. Standard Term and Conditions for the supply of Goods or services to Transnet
4. Vendor application form
5. General Bid Conditions – Appendix (i)
6. Standard term and conditions of contract (services) Appendix (ii)

Annexure A – Special Conditions

Annexure B - Project Specifications

Annexure C - Measurements and payment

Annexure D - Schedule of applicable specifications, instructions & drawings

E7/1 – document

Safety checklist

Section 1
NOTICE TO BIDDERS

Quotations are requested from interested companies, close corporations or enterprises (hereinafter referred to as the "Respondent(s) to supply the above-mentioned to Transnet.

A briefing session will be conducted on the 19 June 2013, time 10:00 at the Transnet Park Building, Robert Sobukwe road, Bellville, for a period of ± one hour. **(Respondent to provide own transportation and accommodation).**

Respondents will depart to the site at Muldersvlei after completion of the briefing session.

Respondents arriving late will not be accommodated.

Respondents failing to attend the compulsory briefing session will be disqualified.

Respondents without a valid RFQ document in their possession will not be allowed to attend the briefing session.

Quotations must reach the Secretary, Local Acquisition Council before the closing hour on the date shown below, and must be enclosed in a sealed envelope which must have inscribed on the outside:

RFQ No	: BLE 52257
Description	: SUPPLY, INSTALLATION OF RECTIFIERS AT MULDERSVLEI
Closing date	: 25 June 2013
Closing time	: 10:00

DELIVERY INSTRUCTIONS FOR THIS RFQ

If posted, the envelope must be addressed to the Acquisition Council, P.O. Box 2986, Bellville, 7535, and must be dispatched in time for sorting by the Post Office to reach the Secretary before the closing time of the RFQ. In the event of the late receipt of a Quotation, the Respondent's franking machine impression will not be accepted as proof that the response was posted in time.

If delivered by hand, the envelope is to be deposited in the TRANSNET tender box which is located at the main entrance, Transnet Park Building, Robert Sobukwe road (Modderdam), Bellville, and should be addressed as follows.

ACQUISITION COUNCIL
TRANSNET PARK BUILDING
MODDERDAM ROAD
BELLVILLE

It should also be noted that the above tender box is located at the main entrance and is if dispatched by courier, the envelope must be addressed as follows and delivered to the Office of The Acquisition Council.

e-mail :

The Price Schedule – Section 2, the Supplier Declaration Document and the Returnable documents to : carol.swan@transnet.net and Johanna.kotze@transnet.net the subject of the e-mail must indicate only the RFQ number and closing date. As mentioned above, the e-mail must be submitted before the closing date and time.

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD: the RFQ document may be post , courier or e-mailed

CLOSING VENUE: Transnet Park Building, Robert Sobukwe road (Modderdam road), Bellville

It should also be noted that the above tender box is located at the main entrance and is if dispatched by courier, the envelope must be addressed as follows and delivered to the Office of The Secretary, Acquisition Council.

Section 1 NOTICE TO BIDDERS

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD: [email / post and/or courier]

CLOSING VENUE: [email address / courier and/or tender box at physical address]

1 Responses to RFQ

Responses to this RFQ [**Quotations**] must not include documents or reference relating to any other quotation or proposal. Any additional conditions must be embodied in an accompanying letter.

2 Broad-Based Black Economic Empowerment [B-BBEE]

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it would therefore prefer to do business with local business enterprises who share these same values. Transnet will accordingly allow a "preference" in accordance with the 10%/20% preference system, as per the Preferential Procurement Policy Framework Act 5 of 2000 [as amended], to companies who provide a B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

In compliance with the Government Gazette No 34612, Notice No. 754 dated 23 September 2011, as from 1 October 2011 valid B-BBEE Verification Certificates must be issued by:

- a) Verification Agencies accredited by the South African National Accreditation System [SANAS]; or
- b) Registered Auditors approved by the Independent Regulatory Board of Auditors [IRBA], in accordance with the approval granted by the Department of Trade and Industry.

Enterprises will be rated by such agencies based on the following:

- c) **Large Enterprises** [i.e. annual turnover greater than R35 million]:
 - Rating level based on all seven elements of the B-BBEE scorecard
- d) **Qualifying Small Enterprises – QSE** [i.e. annual turnover between R5 million and R35 million]:
 - Rating based on any four of the elements of the B-BBEE scorecard
- e) **Exempted Micro Enterprises – EME** [i.e. annual turnover less than R5 million]:
 - Automatic rating of Level 4 B-BBEE irrespective of race or ownership
 - Black ownership greater than 50% or Black Women ownership greater than 50% automatically qualify as Level 3 B-BBEE

EME's should only provide documentary proof of annual turnover [i.e. annual financials or a formal letter by an auditor, accountant or a SANAS accredited verification agency]. Such letter should also indicate the percentage of Blacks and Black-women ownership.

[Refer Section 4, Vendor Application Form, for Returnable Documents required]

3 Communication

a) Respondents are warned that a response will be liable for disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer(s) or employee of Transnet in respect of this RFQ between the closing date and the date of the award of the business.

b) A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name: Mr JP Carstens

Email: cobus.carstens@transnet.net

c) Respondents may also, at any time after the closing date of the RFQ, communicate with the Secretariat of the Acquisition Council on any matter relating to its RFQ response:

Telephone _____

Email _____

4 Tax Clearance

The Respondent's original valid Tax Clearance Certificate or letter of good standing from SARS must accompany the Quotation, this is a Mandatory document, see the Returnable documents.

5 VAT Registration

The valid VAT registration number must be stated here: _____ *[if applicable]*.

6 Legal Compliance

The successful Respondent shall be in full and complete compliance with any and all applicable state and local laws and regulations.

7 Changes to Quotations

Changes by the Respondent to its submission will not be considered after the closing date and time.

8 Pricing

All prices must be quoted in South African Rand on a fixed price basis, excluding VAT.

9 Prices Subject to Confirmation

Prices quoted which are subject to confirmation will not be considered.

10 Negotiations

Transnet reserves the right to undertake post-bid negotiations with selected Respondents or any number of short-listed Respondents.

Respondent's Signature

Date & Company Stamp

11 Binding Offer

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

12 Disclaimers

Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that Transnet reserves the right to:

- modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
- reject any Quotation which does not conform to instructions and specifications which are detailed herein;
- disqualify Quotations submitted after the stated submission deadline;
- not necessarily accept the lowest priced Quotation;
- reject all Quotations, if it so decides;
- place an order in connection with this Quotation at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier; or
- make no award at all.

13 Evaluation Criteria

Transnet will utilise the following criteria [not necessarily in this order] in choosing a Supplier, if so required:

- Compliance with this RFQ - Completeness of response and returnable documents
- Technical: Compliance to specification / quality
- Previous performance - see Annexure E
- B-BBEE status of company

14 Validity Period

Transnet desires a validity period of 30 [thirty] days from the closing date of this RFQ. It should be noted that Respondents may offer an earlier validity period, but Quotations may be rejected for that reason. Should Respondents be unable to comply with this validity period, an alternative validity period must be stated hereunder:

This RFQ is valid until _____ [State alternative validity period/date].

15 Banking Details

BANK: _____

BRANCH NAME / CODE: _____

ACCOUNT HOLDER: _____

ACCOUNT NUMBER: _____

16 Company Registration

Registration number of company / C.C. _____

Registered name of company / C.C. _____

17 Disclosure of Prices Quoted

Respondents must indicate here whether Transnet may disclose their quoted prices and conditions to other Respondents:

YES NO

18 Returnable Documents

Returnable Documents or **Documents** means all the documents, Sections and Annexures, as listed in the tables below.

- a) Respondents are required to submit with their Quotations the **Returnable Documents**, as detailed below.

Failure to provide all these Returnable Documents will result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these Documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent. Please confirm submission of these mandatory Returnable Documents by so indicating [√] in the table below:

Returnable Documents	Submitted [√]
SECTION 2 : Quotation Form / Price schedule	
SECTION 3 : Standard Terms and Conditions of Contract for the Supply of Goods or Services to Transnet	

- b) In addition to the requirements of section (a) above, Respondents are further required to submit with their Quotations the following **essential Returnable Documents** as detailed below.

Failure to provide all these Returnable Documents may result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these documents are returned with their Quotations.

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Respondent. Please confirm submission of these essential Returnable Documents by so indicating [√] in the table below:

Returnable Documents	Submitted [√]
SECTION 1 : Notice to Bidders	
- Valid B-BBEE Verification Certificate [RSA Large Enterprises and QSEs]	
- Valid B-BBEE certificate from auditor, accounting officer or SANAS accredited Verification Agency [RSA EMEs]	
SECTION 5 : Vendor Application Form	

Respondent's Signature

Date & Company Stamp

Returnable Documents	Submitted [√]
- Original cancelled cheque or bank verification of banking details	
- Certified copies of IDs of shareholder/directors/members [as applicable]	
- Certified copy of Certificate of Incorporation [CM29/CM9 name change]	
- Certified copy of share certificates [CK1/CK2 if C.C.]	
- Entity's letterhead	
- Certified copy of valid Company Registration Certificate [if applicable]	
- A signed letter from Respondent's auditor or accountant confirming most recent annual turnover figures	

Mandatory Document	Submitted [√]
- Original valid Tax Clearance Certificate [RSA entities only]. If a JV or subcontractor is involved, submit a Tax Clearance Certificate for each entity	
- Quality Plan – indicate what steps will be taken to implement a Quality System in terms of ISO 9002	

**FAILURE TO OBSERVE ANY OF THE AFOREMENTIONED REQUIREMENTS
MAY RESULT IN A QUOTATION BEING REJECTED**

Respondent's Signature

Date & Company Stamp

Section 2
QUOTATION FORM

I/We _____
hereby offer to supply the goods/services at the prices quoted in the Price Schedule below, in accordance with the conditions related thereto.

I/We agree to be bound by those terms and conditions in:

- the Standard Terms and Conditions for the Supply of Goods and Services to Transnet [Section 3 hereof]; and
- any other standard or special conditions mentioned and/or embodied in this Request for Quotation.

I/We accept that unless Transnet should otherwise decide and so inform me/us, this Quotation [and, if any, its covering letter and any subsequent exchange of correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

I/We further agree that if, after I/we have been notified of the acceptance of my/our Quotation, I/we fail to deliver the said goods/service/s within the delivery lead-time quoted, Transnet may, without prejudice to any other legal remedy which it may have, cancel the order and recover from me/us any expenses incurred by Transnet in calling for Quotations afresh and/or having to accept any less favourable offer.

I/We _____ hereby
confirm we have read the specifications and clearly understand the requirements and offer to supply the services at the prices quoted in the Price Schedule below, in accordance with the conditions related thereto.

Price Schedule

MULDERSVLEI 3KV SUBSTATION						
Item	DESCRIPTION	Qty	Unit	Installation Cost	Material Cost	Total
4.1	Preliminary and General	sum				
4.2	Dismantle, remove and transport old equipment from site to Salt River Scrap Bank	sum	1			
4.3	Supply copper busbar from the transformer to the Rectifier, to Reactor coil, and to the positive isolator including negative bar	sum	1			
4.4	Supply the Positive Isolator complete with fibre optic under voltage relay(1x relay)	ea	2			
4.5	Supply 5 MW rectifier complete with diode monitoring and fan control	ea	2			
4.6	Supply Auxiliary control cable (50 mm ² x 4core)	sum	1			
4.7	Relocate the auxiliary isolating switch inside the control panel	ea	2			
4.8	Supply new mechanical interlocking set	ea	2			
4.9	Supply cables for the new DC earth leakage system (Indoor earthing), all control and power cables	sum	1			
4.10	Supply and Install DC Earth leakage complete	ea	1			
4.11	Supply all checker plates , fit and paint them black	sum	1			
4.12	Supply AC/DC distribution panel	ea	1			
4.13	Supply and Install charger	ea	1			
4.14	Supply all positive cables	sum	1			
4.15	Redo indoor earthing complete	sum	1			
4.16	Supply polish and polish substation floor red oxide	sum	1			

Respondent's Signature

Date & Company Stamp

4.17	Rewire a room fan with adjustable temperature sensor or control into the panel	ea	2			
4.18	Supply low SF6 gas indication in control circuitry	ea	2			
4.19	Supply AC primary circuit breaker control panel	ea	2			
4.20	Supply all control cables from PCB to panel and AC Disconnects	sum	1			
4.21	Remove negative busbar/shunt and relocate it inside the building	ea	1			
4.22	At the star point of the transformer supply and install cables through the wall with 6phases and connect it to the negative busbar inside the building	ea	2			
4.23	Supply and Fit the Perspex windows to the busbar chamber 400mm * 400mm	sum	1			
4.24	Clean and paint the fencing around the rectifiers on both units and reactor coils	sum	1			
Total (Exc. Vat)						R

Total amount in words : _____
 _____ (exc- VAT)

Delivery Lead-Time from date of purchase order : _____ [days/weeks]

The duration of this project is a maximum of 3 weeks.

Respondent's contact person: *[Please complete]*

Company name :
Designation :
Telephone :
Cell Phone :

 Respondent's Signature

 Date & Company Stamp

Section 3

STANDARD TERMS AND CONDITIONS FOR THE SUPPLY OF GOODS OR SERVICES TO TRANSNET

A Supplier shall be obliged to adhere to the Standard Terms and Conditions for the Supply of Goods and Services to Transnet as expressed hereunder. Should the Respondent find any condition(s) unacceptable, it should indicate which condition(s) is/are unacceptable and offer an alternative(s). A Quotation submitted by a Respondent will be subjected to review and acceptance or rejection of its proposed contractual terms and conditions by Transnet's Legal Counsel, prior to consideration for an award of business.

1 SOLE AGREEMENT

Unless otherwise agreed in writing, these terms [Terms and each Term] and Transnet's purchase order(s) [Order or Orders] represent the only conditions upon which Transnet SOC Ltd [Transnet] procures goods or services specified in the Order [collectively, the Products] from the person to whom the Order is addressed [the Supplier]. Transnet does not accept any other conditions which the Supplier may specify, unless otherwise agreed to by Transnet in writing. In the event of any inconsistency between these Terms and any Order, these Terms shall take precedence.

2 CONFORMITY WITH ORDER

Products shall conform strictly with the Order. The Supplier shall not vary the quantities specified and/or the specification, if any, stipulated in the Order, without the prior written consent of Transnet. The Supplier warrants that the Products shall be fit for their purpose and of satisfactory quality.

3 DELIVERY AND TITLE

3.1 The delivery dates and addresses are those in the Order. Time shall be of the essence in respect of the Supplier's obligations under the Order.

3.2 The Supplier will not be excused for delay in delivery or performance except due to circumstances outside its control and then only subject to the Supplier having notified Transnet in writing on becoming aware of such circumstances. Transnet may terminate an Order, in whole or in part, without incurring any liability to the Supplier if such a delay becomes, in Transnet's absolute opinion, significant.

3.3 Risk of loss or damage to Products shall pass to Transnet on delivery, and title shall pass to Transnet when payment to the Supplier for the Products has been effected.

3.4 If on delivery, the Products do not conform to the Order, Transnet may reject the Products and the Supplier shall promptly rectify any defects or in Transnet's opinion, supply appropriate replacement Products at the Supplier's expense within the specified delivery times, without any liability due by Transnet. Products shall be subject to such testing and/or inspection as Transnet may consider necessary.

4 PRICE AND PAYMENT

4.1 Prices specified in an Order cannot be increased. Payment for the Products shall be made by Transnet against an original undisputed invoice(s) [a Tax Invoice], supporting documentation and

month-end statement from the Supplier. Tax Invoices plus supporting documentation shall be posted to the address shown in the Order.

- 4.2 Payment of the Supplier's valid Tax Invoice(s) will be made by Transnet in the South African currency and on the terms stated in the Order, the standard payment terms being 30 [thirty] days from date of receipt by Transnet of a month-end statement, unless otherwise agreed to in writing. Transnet shall arrange for payment of such Tax Invoices and any pre-authorised additional expenses incurred, provided that the authorised expenses are supported by acceptable documentary proof of expenditure incurred [where this is available]. Any amounts due in terms of these Terms shall be paid to the Supplier, taking into account any deduction or set-off and bank charges.

5 PROPRIETARY RIGHTS LIABILITY

If any allegations should be made or any claim asserted against Transnet that ownership of, or any act or omission by Transnet in relation to Products or any written material provided to Transnet relating to any Products or pursuant to an Order being a violation or infringement of any third party's contractual, industrial, commercial or intellectual property rights including but not limited to any patent, registered design, design right, trade mark, copyright or service mark on any application thereof, the Supplier hereby indemnifies Transnet against and hold it harmless from any and all losses, liabilities, costs, claims, damages and expenses [including any legal fees] arising directly or indirectly from such allegation or claim provided that this indemnity shall not apply where the allegation or claim arises solely as a result of the Supplier following a design or process originated and furnished by Transnet. The Supplier shall either

- a) procure for Transnet the right to continue using the infringing Products; or
- b) modify or replace the Products so that they become non-infringing,

provided that in both cases the Products shall continue to meet Transnet's requirements and any specifications stipulated in the Order. Should neither option be possible, the Supplier may remove, with Transnet's prior written consent, such Products and will pay to Transnet a sum equivalent to the purchase price. If Transnet refuses to give such consent, the Supplier shall have no liability in respect of any continued use of the infringing Products after Supplier's prior written request to remove the same.

6 PROPRIETARY INFORMATION

All information which Transnet has divulged or may divulge to the Supplier and any information relating to Transnet's business which may have come into the Supplier's possession whilst carrying out an Order, and the existence of the Order, shall be treated by the Supplier as confidential information and shall not, without Transnet's prior written consent, be disclosed to any third party, or be used or copied for any purposes other than to perform the Order. This clause does not apply to information which is public knowledge or available from other sources other than by breach of this Term. Upon request by Transnet, the Supplier shall return all materials issued pursuant to the Order and, pending this, shall protect Transnet's rights in any such materials. Such confidential information shall at all material times be the property of Transnet.

7 DEVELOPMENT WORK IN THE PRODUCTION OF PRODUCTS

If the production or provision of any Products involves research and/or development which is wholly or partly funded by Transnet, then all intellectual property or other rights as a result thereof shall be the property of Transnet on creation.

8 PUBLICITY

The Supplier shall not name Transnet or use its trademarks, service marks [whether registered or not] or Products in connection with any publicity without Transnet's prior written consent.

9 AFTER SALES SERVICE

The Supplier shall provide replacement parts necessary to ensure the uninterrupted operation of the Products supplied for the duration of the warranty period, from delivery of any particular item of the Products and if requested by Transnet shall make these parts available to a third party maintainer of Transnet's choice at the same price as if the parts had been supplied to Transnet. The Supplier undertakes to provide a maintenance service for Products, should Transnet so request, on terms to be agreed. If the Order so indicates, the Supplier will provide a warranty service for the Products at a level to be agreed with Transnet.

10 TERMINATION OF ORDER

- 10.1 Transnet may cancel an Order in whole or in part at any time upon at least 7 [seven] days' written notice to the Supplier, or when there is a change in control of the Supplier or the Supplier commits any serious breach or any repeated or continued material breach of its obligations under these Terms and/or Order or shall have been guilty of conduct tending to bring itself into disrepute, on written notice to the Supplier when such work on the Order shall stop.
- 10.2 Transnet shall pay the Supplier a fair and reasonable price for justified work in progress, where such price reflects only those costs not otherwise recoverable by the Supplier, at the time of termination, and the Supplier shall give Transnet full assistance to check the extent of such work in progress. Payment of such price shall be in full and final satisfaction of any claims arising out of such termination and upon such payment the Supplier shall deliver to Transnet all work, including any materials, completed or in progress. The sum payable to the Supplier under this clause will not in any event exceed the total amount that would have been payable to the Supplier had the Order not been terminated.
- 10.3 In the event of termination the Supplier must submit all claims within 2 [two] months of termination after which time claims will only be met in what Transnet considers exceptional circumstances.
- 10.4 If the Products are not provided in accordance with an Order, the Order shall be deemed terminated and the Supplier shall compensate Transnet for any costs incurred in obtaining substitute Products or any damage caused due to the failure or delay in the delivery.

11 ACCESS

The Supplier shall be liable for the acts, omissions and defaults of its personnel or agents who, for the purposes of the Order, shall be treated as if they are the Supplier's employees. The Supplier shall ensure

that any such personnel or agents, whilst on Transnet's premises, shall comply with Transnet's health and safety, security and system security rules and procedures as and where required.

12 WARRANTY

The Supplier warrants that it is competent to supply the Products in accordance with these Terms to the reasonable satisfaction of Transnet and that all Products delivered under the Order: (a) conform and comply in all relevant legislation, standards, directives and orders related to *[inter alia]* the supply, manufacture and use of the Products in force at the time of delivery, and to any specifications referred to in the Order; (b) will not cause any deterioration in the functionality of any Transnet equipment; and (c) do not infringe any third party rights of any kind. The Supplier hereby indemnifies Transnet against all losses, liabilities, costs, claims, damages, expenses and awards of any kinds incurred or made against Transnet in connection with any breach of this warranty.

13 INSOLVENCY

If the Supplier shall have a receiver, manager, administrator, liquidator or like person appointed over all or any part of its assets or if the Supplier compounds with its creditors or passes a resolution for the winding up or administration of the Supplier, Transnet is at liberty to terminate the Order or Orders forthwith, or at its option, to seek performance by any such appointed person.

14 ASSIGNMENT

The Supplier shall not assign its obligations under an Order without Transnet's prior written consent, which consent shall not be unreasonably withheld or delayed.

15 NOTICES

Notices under these Terms shall be delivered by hand to the relevant addresses of the parties in the Order or may be served by facsimile or by email, in which event notice shall be deemed served on acknowledgement of receipt by the recipient.

16 LAW

Orders shall be governed by and interpreted in accordance with South African law and any disputes arising herein shall be subject to South African arbitration under the rules of the Arbitration Foundation of South Africa, which rules are deemed incorporated by reference in this clause. The reference to arbitration shall not prevent Transnet referring the matter to any South African courts, having jurisdiction, to which the Supplier hereby irrevocably submits but without prejudice to Transnet's right to take proceedings against the Supplier in other jurisdictions and/or obtaining interim relief on an urgent basis from a court of competent jurisdiction pending the decision in other courts or from instituting in any court of competent jurisdiction any proceedings for an interdict or any other injunctive relief. If the Supplier does not have a registered office in the South Africa it will at all times maintain an agent for service of process in South Africa and shall give Transnet the name and address of such agent as such may be amended, in writing, from time to time.

17 GENERAL

Completion or termination of an Order shall be without prejudice to any Term herein which by its nature would be deemed to continue after completion or termination, including but not limited to clauses 5, 6, 7,

8 and 12. Headings are included herein for convenience only. If any Term herein be held illegal or unenforceable, the validity or enforceability of the remaining Terms shall not be affected. No failure or delay by Transnet to enforce any rights under these Terms will operate as a waiver thereof by Transnet. All rights and remedies available to either party under these Terms shall be in addition to, not to the exclusion of, rights otherwise available at law.

18 COUNTERPARTS

These Terms and conditions may be signed in any number of counterparts, all of which taken together shall constitute one and the same instrument. Any party may enter into this agreement by signing any such counterpart.

"PREVIEW COPY ONLY"

Respondent's Signature

Date & Company Stamp

By signing this RFQ document, the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed to properly take it into account for the purpose of calculating quoted prices or otherwise.

SIGNED at _____ on this _____ day of _____ 20__

.....
SIGNATURE OF RESPONDENT'S AUTHORISED REPRESENTATIVE

NAME: _____

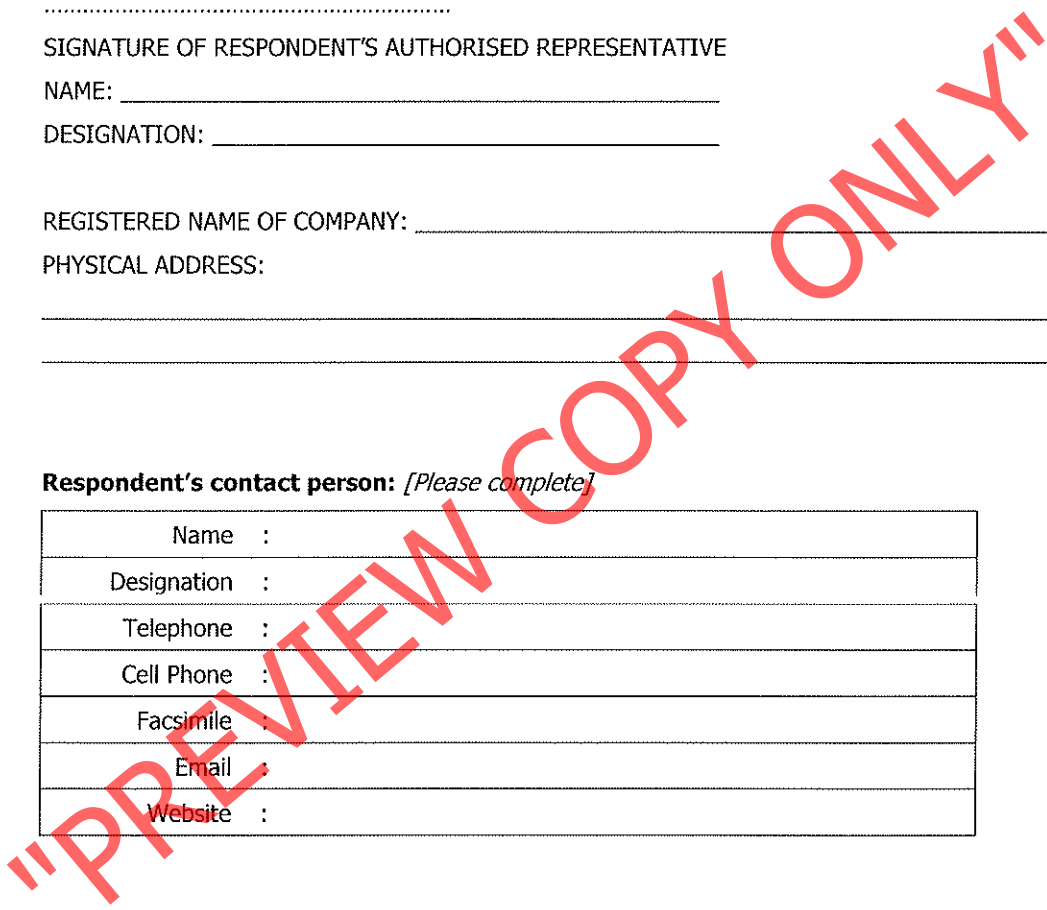
DESIGNATION: _____

REGISTERED NAME OF COMPANY: _____

PHYSICAL ADDRESS: _____

Respondent's contact person: [Please complete]

Name :
Designation :
Telephone :
Cell Phone :
Facsimile :
Email :
Website :



**Transnet urges its clients, suppliers and the general public
to report any fraud or corruption to
TIP-OFFS ANONYMOUS : 0800 003 056**

Respondent's Signature

Date & Company Stamp

Section 4
VENDOR APPLICATION FORM

"PREVIEW COPY ONLY"

Respondent's Signature

Date & Company Stamp



Transnet Supplier Declaration/Application

The Financial Director or Company Secretary

Transnet Vendor Management has received a request to load your company on to the Transnet vendor database. Please furnish us with the following to enable us to process this request:

1. Complete the "Supplier Declaration Form" (SDF) on page 2 of this letter
2. **Original** cancelled cheque **OR** letter from the bank verifying banking details (**with bank stamp**)
3. **Certified** copy of Identity document of Shareholders/Directors/Members (where applicable)
4. **Certified** copy of certificate of incorporation, CM29 / CM9 (name change)
5. **Certified** copy of share Certificates of Shareholders, CK1 / CK2 (if CC)
6. A letter with the company's letterhead confirming physical and postal addresses
7. **Original or certified** copy of SARS Tax Clearance certificate and Vat registration certificate
8. A signed letter from the Auditor / Accountant confirming most recent annual turnover and percentage black ownership in the company **AND/OR** BBBEE certificate and detailed scorecard from an accredited rating agency (SANAS member).

NB:

- **Failure to submit the above documentation will delay the vendor creation process.**
- *Where applicable, the respective Transnet business unit processing your application may request further information from you. E.g. proof of an existence of a Service/Business contract between your business and the respective Transnet business unit etc.*

IMPORTANT NOTES:

- a) **If your annual turnover is less than R5 million**, then in terms of the DTI codes, you are classified as an Exempted Micro Enterprise (EME). If your company is classified as an EME, please include in your submission, a signed letter from your Auditor / Accountant confirming your company's most recent annual turnover is less than R5 million and percentage of black ownership and black female ownership in the company **AND/OR** BBBEE certificate and detailed scorecard from an accredited rating agency (e.g. permanent SANAS Member), should you feel you will be able to attain a better BBBEE score.
- b) **If your annual turnover is between R5 million and R35million**, then in terms of the DTI codes, you are classified as a Qualifying Small Enterprise (QSE) and you claim a specific BBBEE level based on any 4 of the 7 elements of the BBBEE score-card, please include your BEE certificate in your submission as confirmation of your status.
NB: BBBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. permanent SANAS Member).
- c) **If your annual turnover is in excess of R35million**, then in terms of the DTI codes, you are classified as a Large Enterprise and you claim a specific BEE level based on all seven elements of the BBBEE generic score-card. Please include your BEE certificate in your submission as confirmation of your status.
NB: BBBEE certificate and detailed scorecard should be obtained from an accredited rating agency (permanent SANAS Member).
- d) **To avoid PAYE tax being automatically deducted from any Invoices received from you**, you must also contact the Transnet person who lodged this request on your behalf, so as to be correctly classified in terms of Tax legislation.
- e) Unfortunately, **No payments can be made to a vendor** until the vendor has been registered, and no vendor can be registered until the vendor application form, together with its supporting documentation, has been received and processed.
- f) Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents mentioned above to the Transnet Official who is intending to procure your company's services/products in order that he/she should complete and Internal Transnet Departmental Questionnaire before referring the matter to the appropriate Transnet Vendor Master Office.

Regards,

Transnet Vendor/Supplier Management .Contact person Carol tell: 021 940-3846 fax 021 940-3883.



Supplier Declaration Form

Company Trading Name						
Company Registered Name						
Company Registration Number Or ID Number If A Sole Proprietor						
Form of entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
VAT number (if registered)						
Company Telephone Number						
Company Fax Number						
Company E-Mail Address						
Company Website Address						
Bank Name			Bank Account Number			
Postal Address					Code	
Physical Address					Code	
Contact Person						
Designation						
Telephone						
Email						
Annual Turnover Range (Last Financial Year)		< R5 Million	R5-35 million	> R35 million		
Does Your Company Provide		Products	Services	Both		
Area Of Delivery		National	Provincial	Local		
Is Your Company A Public Or Private Entity				Public		Private
Does Your Company Have A Tax Directive Or IRP30 Certificate				Yes		No
Main Product Or Service Supplied (E.G.: Stationery/Consulting)						

BEE Ownership Details

% Black Ownership	% Black women ownership	% Disabled person/s ownership	
Does your company have a BEE certificate		Yes	No
What is your broad based BEE status (Level 1 to 9 / Unknown)			
How many personnel does the firm employ		Permanent	Part time

Transnet Contact Person	
Contact number	
Transnet operating division	

Duly Authorised To Sign For And On Behalf Of Firm / Organisation

Name	Designation
Signature	Date

Stamp And Signature Of Commissioner Of Oath

Name	Date
Signature	Telephone No.

NB: Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents mentioned above to the Transnet Official who is intending to procure your company's services/products.

Transnet Vendor/Supplier Management .Contact person Carol tell: 021 940-3846 fax 021 940-3883

Section 5

General Bid Conditions - Appendix (i)

The Appendix (i) is not attached, this document is available on request.

"PREVIEW COPY ONLY"

Section 6

Standard term and conditions of contract (services) – Appendix (ii)

The Appendix (ii) is not attached, this document is available on request.

"PREVIEW COPY ONLY"

ANNEXURE A

BLE52257

SPECIAL CONDITIONS

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF RECTIFIERS, AC/DC DISTRIBUTION PANEL, PCB CONTROL PANELS, POSITIVE ISOLATOR SWITCHES AT MULDESVLEI 3KV DC TRACTION SUBSTATION

1.1 Sufficiency of Tender

- 1.1.1 Tender shall indicate clause-by-clause compliance with the specifications. This shall take the form of a separate document listing all the specifications clause numbers indicating the individual statement of compliance or non-compliance. This document shall be used by Tenderers to elaborate on their response to a clause.
- 1.1.2 Where equipment offered does not comply with standards or publications referred to in any of the specifications, Tenderers shall state which standards of specifications apply and submit a copy of the applicable specification and or standard in English.
- 1.1.3 Any drawings and information required by Transnet but not included in the specification shall be furnished on request.
- 1.1.4 All relevant information of the material used for the installation shall be submitted with the tender document including the technical specification.
- 1.1.5 Transnet reserves the right to inspect the tenderer's facilities prior to awarding the contract in order to ensure that it is suitable for the type of repair required.
- 1.1.6 The Contractor shall indicate at the tendering stage what steps have been taken to implement a Quality System in terms of ISO 9002 and shall submit such a Quality Plan.
- 1.1.7 Incomplete tenders will be automatically disqualified.

1.2 Duration of contract

- 1.2.1 The contract will commence immediately after of acknowledgement of receipt of the notification of acceptance of tender with Transnet Freight Rail.
- 1.2.2 The contract will be completed within 3 weeks of acknowledgement of receipt of the notification of acceptance of tender with Transnet Freight Rail.

1.3 Compliance with statutes

- 1.3.1. The Contractor shall comply with all applicable legislation, Codes of Practice and Local, Regional or Provincial Authority regulations. The Contractor shall in particular, comply with the following Instructions, Acts etc;
- SANS 1019 Standard voltage, current and insulating level for electrical supply
 - The compensation for Occupational Injuries and Diseases Act (Act 130 of 1993).
 - The Occupational Health and Safety Act (Act 85 of 1993)
 - Common law of nuisance

1.4 Maintenance period

A maintenance period of 6 months after the equipment has been energized will be instituted to ensure that installation works has been properly done. Contractor shall repair any defects within two weeks from the date of such notification of the defect(s).

1.5 Retention money

10% of the total value of the contract will be retained for the maintenance period, until work has been satisfactory completed.

1.6 Penalties for late completion

A penalty fee for late completion of R1500 per calendar day shall be levied.

1.7 To be provided by Transnet Freight Rail

NIL

1.8 To be provided by the contractor

- 1.8.1 In addition to all labour, water, materials, plant, equipment and incidentals needed to complete the work, the Contractor shall provide all accommodation and toilet facilities for his/her employees. No accommodation shall be erected or utilised on Transnet Freight Rail property.
- 1.8.2 The Contractor shall provide safe and secure storage facilities for all tools, machineries plant equipment brought onto and in use on the site. Such facilities shall be capable of ensuring that unauthorised persons or animals cannot gain access to such chemicals and equipment. Such storage facilities shall not be on Transnet Freight Rail property.
- 1.8.3 The Contractor shall provide at his/her own cost any security measures he/she may deem necessary for safe and effective execution of the work within the contract area. No persons may stand or walk within 5m of the centre of the track.
- 1.8.4 The Contractor shall appoint at each work site sufficient personnel whose sole task shall be to be on the lookout for approaching rail traffic. These employees shall operate an audible warning device to timorously warn all people on the work site of approaching rail traffic.
- 1.8.5 An effective safety procedure to be followed by all personnel on any work site shall be compiled by the Contractor and implemented before any work commences. The procedure shall be updated whenever the need arises and any changes shall be communicated to all employees on a work site before work proceeds.

1.9 Schedule of quantities and prices

- 1.9.1 The quantities in/at the Price Schedule – Section 2, are estimated and may be more or less than stated.
- 1.9.2 The tenderer shall price each item. If the Contractor has omitted to price any items in the Price Schedule, the cost of the work included in such items will be held to be included in the price given for preliminary and general.
- 1.9.3 The absence of stated quantities in the Price List is no guarantee that none will be required. Reasonable prices should therefore be inserted for every item as these prices may be considered in adjudication of tenders.

1.9.4 The short descriptions of the items in the Price List are for identification purposes only. In so far as these documents have any bearing, they shall be referred to for details of the description, quality, and test of plant and material used, and the workmanship, conditions, obligations, liabilities and instructions generally which shall be complied with in carrying out the Contract. The cost of complying with all conditions, obligations and liabilities described in the contract documents including profit, shall be deemed to be included in the rates quoted by the Contractor in the Price List.

1.10 Site meetings

The Contractor shall attend site meetings when required. These meetings will be held under the chairmanship of the Supervisor or his/her deputy. When sub-contractors are required to attend, the Contractor shall ensure their attendance.

1.11 Site books

1.11.1 The Contractor shall provide a site instruction book and a daily diary (both in triplicate) at the site as directed by the Supervisor for the duration of the contract.

1.11.2 The site instruction book shall only be used by the Supervisor or his/her deputy and will be used for the issuing of instructions to the Contractor.

1.11.3 The site diary book shall be used to record any unusual events during the period of the contract. All delays caused by the Contractor, Transnet Freight Rail employees and due to natural causes shall be recorded. Such delays must be counter-signed by the appointed Supervisor. Other delays caused by the 3rd party shall be reported to the Project Manager / Technical Manager, immediately in writing.

1.11.4 The Contractor shall complete the daily diary and a detailed description of the work done shall be recorded on a daily basis. Neither of the books shall be removed from the site without the permission of the Supervisor or his/her deputy.

1.12 Information to be provided with tender

1.12.1. The Contractor shall undertake the planning and programming of the entire installation works and shall submit to the Supervisor for approval full particulars thereof with his/her tender.

1.12.2. An undertaking that all equipment will be ready for operation and that the work can commence timeously, to comply with requirements of the contract.

1.12.3. The contractor must indicate whether he/she intends using sub-contractors.

1.13 Damage to fauna and flora

1.13.1 The Contractor shall ensure that his/her employees at all times exercise care and consideration for the fauna and flora within and adjacent to the area to be treated for oil contamination.

1.13.2 The Contractor shall not apply any chemicals of an explosive, inflammable, highly volatile or corrosive nature, which may damage painting and steel components of Electrical Equipment or property, or be hazardous to humans or animals. The Contractor shall assume full responsibility for the efficiency and safety of whatever chemicals used to treat the oil contaminated yard stones and plinths.

1.13.3 Dumping or polluting of any kind will not be permitted. This stipulation is also applicable to the washing out of tanks and equipment containing harmful chemicals and pollutants.

1.13.4 The Contractor shall institute and maintain procedures for the safe disposal of all chemicals and residual materials originating from the execution of the works.



ANNEXURE B

PROJECT SPECIFICATIONS

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF RECTIFIERS, AC/DC DISTRIBUTION PANEL, PCB CONTROL PANELS AND POSITIVE ISOLATOR SWITCHES AT MULDERSVLEI 3kV DC TRACTION SUBSTATION

2.1 Scope of work

This contract covers the supply, installation, testing and commissioning of Rectifiers, AC/DC distribution panel, PCB control panels, positive isolator switches, UV control box, cleaning of indoor building and the floor at Muldersvlei 3kV DC Traction Substation.

2.2 Description of work

The Contractor shall perform the following at Muldersvlei 3kV Substation:

2.2.1 Busbars

- 2.2.1.1 Supply and install all copper bus-bars 50mm²x10mm² busbars from the transformer AC side to the rectifier and on the DC side 100mm²x10mm² to the reactor coil, positive isolator and the negative bar.
- 2.2.1.2 The Contractor shall dismantle, remove and transport all old equipment from site to Salt River Scrap Bank.
- 2.2.1.3 All busbar connections shall be greased by means of silicon substance
- 2.2.1.4 Nuts and bolts on busbar connections shall be stainless steel.

2.2.2 Supply and installation of cables

- 2.2.2.1 Contractor shall supply and install all the control and power cables in accordance with the specifications BBC 0198 version 1 and CEE 0023 of 1990.
- 2.2.2.2 The Contractor shall supply all the control cables from the AC disconnect to the indoor substation building.
- 2.2.2.3 The Contractor shall make provision for terminating the armoured cables both in the substation indoor building and outdoor yard.
- 2.2.2.4 The Contractor shall supply joint kits and all necessary terminations.
- 2.2.2.5 Supply and install the auxiliary isolating switch control cable (50mm² x 4 core). The Contractor shall terminate and connect on the auxiliary transformer and inside the control panel.
- 2.2.2.6 The Contractor shall supply and connect the 95 mm² PVC insulated welding cable to interconnect all new and existing equipment to the DC earth leakage relay system.

2.2.3 Mechanical interlocking devices and checker plates

- 2.2.8.1 Supply and install an interlocking mechanism complete of the key exchange type, which include the AC disconnects, positive isolator, auxiliary transformer short out links to the HT bay gate in the correct sequence in accordance with the specification BBB 5452 version 6.

2.2.4 Direct Current earth relay circuit

- 2.2.4.1 Supply and install the DC earth leakage relay. The DC earth leakage relay shall be mounted outside the control panel at a position pointed out by Transnet Freight Rail. The relay shall be enclosed in a metal box.
- 2.2.4.2 The Contractor shall connect all existing checker plates as well as existing equipment (all indoor steelwork) to the DC earth leakage system. The Contractor shall also supply any missing checker plate.
- 2.2.4.3
- 2.2.4.4 The Contractor shall connect all existing checker plates as well as existing equipment (all indoor steelwork) to the DC earth leakage system. The Contractor shall also supply any missing checker plate.
- 2.2.4.5 The Contractor shall replace the DC earth leakage arrangement (system) as per drawing CEE TBD 0007 and enclosed in 25mm² PVC conduits against the walls. The crimping lugs of the interconnection cables shall be correspondingly marked with the busbar as shown on drawing CEE TBD 0007.
- 2.2.4.6 Only hexagon crimps will be accepted on all crimping lugs.
- 2.2.4.7 Resistance between the DC earth leakage busbar and the substation earth mat shall not be less than 25 Ohm.

2.2.5 Positive Isolator Panel

- 2.2.5.1 Supply and install 3 kV DC positive isolator panels in accordance with the specification BBB 4724 version 4. The positive isolator shall be fitted with a 3 kV DC under voltage relay as per specification BBB 3005 version 1.
- 2.2.5.2 The entry position of the busbars into the panel shall be confirmed with Transnet Freight Rail before manufacturing of the panel. Contractor shall provide the required warning signs as per specification BBB 4724 version 4 on the positive isolator panel.
- 2.2.5.3 Supply and install a busbar from the reactor coil to the positive isolator. The busbar entering the positive isolator shall be 100 mm x 10 mm thickness.

2.2.6 3KV DC RECTIFIER

- 2.2.6.1 Supply and mount the copper busbar on the substation wall inside the rectifier bay. The installation shall include the supply of all the required insulators, bolts and fasteners.
- 2.2.6.2 The Contractor shall then supply and install copper busbars, 50mm x 10mm thickness from the mounted copper busbars to the rectifier.
- 2.2.6.3 Supply and install 5 MW rectifiers complete with the diode monitoring system and fan control in accordance with the specification BBB 0496 version 14.
- 2.2.6.4 Supply and install copper busbar (100mm x 10mm thickness) between the rectifier and the negative bar. The negative copper busbar shall be painted black

2.2.7 AC PCB Control Panel and AC/DC Distribution Panel

- 2.2.7.1 Remove the existing AC primary circuit breaker (PCB) and AC/DC distribution panels from site and transport them to Salt River Scrap Bank Infrastructure.
- 2.2.7.2 Supply and install AC PCB control panel and AC/DC distribution panels in accordance with the specification BBB 2721 version 10.
- 2.2.7.3 Supply and install 2 x Protection relays for main transformer, auxiliary supply, AC earth leakage protection.

- 2.2.7.4 The Contractor shall wire the tripping and lock out circuits in accordance with the drawings CEE TBK 0027 and CEE TBK 0028. The circuits shall be incorporated into the AC PCB control panel.
- 2.2.7.5 The Contractor shall wire all the track breaker cells inside the panel.
- 2.2.7.6 The panels shall cater for a 3 contactor changeover system to accommodate the supply from the isolating transformer as well as auxiliary LT supplies.
- 2.2.7.7 The Contractor shall rewire controls for the extractor fan and incorporate into the distribution panel.
- 2.2.7.8 Ensure room fan circuit is still working.
- 2.2.7.9 Transnet Freight Rail representative shall inspect all the panels on the Contractor's premises prior to delivery to site.
- 2.2.7.10 All direct current wiring shall be done in grey coloured wire.
- 2.2.7.11 Colour Red, White and Blue shall be used for AC circuits only. All alternating current wiring shall be colour coded using the standard colours red, white, blue and black for neutral.
- 2.2.7.12 Interior shall be done in gloss white and exterior shall be done in Eau- de- nil high gloss to SANS 1091 colour code no G22.
- 2.2.7.13 Panels shall be colour coated in accordance with SANS 1274.
- 2.2.7.14 Insulated lugs, of the crimp on type, shall be used to terminate wiring onto equipment, strip connectors and protection relays.
- 2.2.7.15 Screw on terminal lugs shall be used on all the protection relays.
- 2.2.7.16 All new and existing cables and wiring shall be clearly labelled by using an approved slide on wiring label system as described.
- 2.2.7.17 Where applicable, the Contractor will be responsible to connect and interconnect the control wiring and cabling of existing equipment to the new and old equipment.
- 2.2.7.18 The Contractor shall make provision for a connection strip in the AC/DC distribution panel and the primary circuit breaker control panel for remote tele-control operations.
- 2.2.7.19 The Contractor shall notify Transnet Freight Rail on completion of the panels in order to witness functional tests on the premises of the Contractor before delivery.
- 2.2.7.20 The Contractor shall incorporate all existing equipment functions into the schematic drawings as per specification CEE 0224 of 2002.
- 2.2.7.21 A copper busbar system consisting of a busbar for each phase red, white and blue shall be used, in the AC/DC panel and concealed behind perspex with warning sign and voltage identification label.
- 2.2.7.22 A copper busbar system consisting of battery supply, holding coil volts and negative shall be used and covered with perspex with a warning sign and voltage labels.
- 2.2.7.23 The Contractor shall supply and install the auxiliary supply switch inside the AC/DC control panel.
- 2.2.7.24 Provision will be made in the primary circuit breaker control panel to install primary overload protection for the auxiliary supply.
- 2.2.7.25 All control panels shall be insulated from the substation floor.
- 2.2.7.26 The layout of the AC and DC equipment inside the control panels shall be done in such a way that the equipment is separated from each other.
- 2.2.7.27 Transnet Freight Rail shall inspect the layout of the equipment before wiring commences of the panels.

- 2.2.7.28 All equipment used in the primary circuit breaker control panel and the AC/DC distribution panel shall comply with the SANS 0142.
- 2.2.7.29 Contractor shall supply his/her own security for the duration of the contract.
- 2.2.7.30 Supply cables and redo a complete outdoor yard and indoor substation earthing.
- 2.2.7.31 Supply polish, clean substation inside floor and polish red oxide.

2.2.8 Installation

- 2.2.8.1 The Contractor shall be responsible for the transport to site, off-loading, handling, storage and security of all material required for the construction/execution of the works.
- 2.2.8.2 All fasteners on steelwork, components and electrical connections (nuts and bolts) shall be secured using flat as well as lock washers.
- 2.2.8.3 Contractor shall supply multi core cable and connect the tele-control. The substation shall not be switched on unless the tele-control is fully operational.

2.2.9 Interconnection of equipment

- 2.2.10.1 High conductive silicon grease shall be liberally applied to all the connections.
- 2.2.10.2 All dissimilar metal connections (Cu to Al) shall be made using bi-metallic clamps that are specifically designed and manufactured to make that particular connection (ad hoc fabricated clamps are not acceptable).
- 2.2.10.3 The contractor must make provision for any small steel parts, bolts and nuts if required. All fasteners (nuts & bolts) shall be secured using flat or beveled washers, as necessary as well as lock washers.

2.2.10 Site Tests

- 2.2.11.1 The equipment shall be inspected/tested and approved by Transnet Freight Rail Quality Assurance at the Contractor's workshop prior to it being taken to site. Only once the approval has been granted can the equipment be taken to site for installation.
- 2.2.11.2 The Contractor shall be responsible for carrying out of on-site tests and commissioning of all equipment supplied and installed in terms of this specification and the contractual agreement.
- 2.2.11.3 Functional on-site tests shall be conducted on all items of equipment and circuitry to prove the proper functioning and installation thereof.
- 2.2.11.4 The Contractor shall submit a detailed list of on-site tests for the approval of the Project Manager or Supervisor.
- 2.2.11.5 The Contractor shall arrange for the Supervisor or his representative to be present to witness the on-site tests.
- 2.2.11.6 The on-site tests and subsequent commissioning **will not commence until ALL CONSTRUCTION** work has been completed. Construction staff, material and equipment shall be removed from site prior to the commencement of testing. Testing and commissioning of the power plants equipment will not be allowed to take place in a construction site environment.
- 2.2.11.7 The on-site tests shall include the following:
- i) Test for the functionality of all electrical circuitry
 - ii) Trip test on relays
 - iii) Test on equipment as per manufacturer's instructions
 - iv) Insulation tests
- 2.2.11.8 At the completion of the on-site tests, the Project Manager or Supervisor or his representative shall either sign the tests sheets (supplied by the Contractor) as having witnessed the satisfactory completion thereof, or hand to the Contractor a list of defects requiring rectification.

- 2.2.11.9 Upon rectification of defects, the Contractor shall arrange for the Project Manager or Supervisor or his representative to certify satisfactory completion of on-site tests.
- 2.2.11.10 Acceptance by the Project Manager or Supervisor of satisfactory completion of on-site tests in no way relieves the Contractor of his obligation to rectify defects which may have been overlooked or become evident at a later stage.

2.2.11 Drawings, Instruction Manuals and Spare Part Catalogues

- 2.2.12.1 All as built drawings shall be supplied in electronic format (Microstation/Acad).
- 2.2.12.2 The successful Contractor shall be required to submit all drawings (paper prints), within four weeks of award of tender, to the Project Manager/Supervisor or Technical Manager for approval. No construction or manufacturing activity will be allowed prior to the associated drawings having been approved.
- 2.2.12.3 During the duration of the contract period, the successful Contractor will be required to inform the Technical Manager/ Project Manager or Supervisor of any changes to these drawings and will have to resubmit the affected drawings for approval prior to it being used on this contract.
- 2.2.12.4 All drawings, catalogues, instruction book and spares lists shall be in accordance with Transnet Freight Rail's specification CEE.0224.2002.
- 2.2.12.5 All final as built drawings shall be provided to Transnet Freight Rail within four weeks after commissioning.
- 2.2.12.6 Supply three sets of A3 schematic wiring diagrams in hard copy format and electronic format for approval.

2.2.12 Commissioning of equipment

- 2.2.13.1 Commissioning will only take place after all defects have been rectified to the satisfaction of the Project Manager/ Technical Manager or Supervisor.
- 2.2.13.2 On completion of commissioning, the Contractor will hand the equipment over to the Project Manager/ Technical Manager or Supervisor in terms of the relevant instruction.
- 2.2.13.3 The commissioning of protection equipment by Transnet Freight Rail will in no way absolve the Contractor from any of his responsibilities during the guarantee period.
- 2.2.13.4 It is the Contractor's responsibility to satisfy himself or herself that the commissioning of the protection equipment has been carried out in a satisfactory manner, and in no way compromises the proper operation of the equipment supplied in terms of the contract.
- 2.2.13.5 The Contractor shall be present during the testing and setting of the protection to rectify any faults found.

2.2.13 Guarantee and defects

- 2.2.14.1 The Contractor shall guarantee the satisfactory operation of the complete electrical installation supplied and erected by him and accept liability for maker's defects that may appear in design, materials and workmanship.
- 2.2.14.2 The Contractor shall be issued with a completion certificate with the list of all defects to be repaired within 14 working days after commissioning.
- 2.2.14.3 The guarantee period for these standby plants shall expire after: A period of 12 months commencing on the date of completion of the contract or the date the standby plant was handed over to Transnet Freight Rail.
- 2.2.14.4 Any defects that may become apparent during the guarantee period shall be rectified to the satisfaction of Transnet Freight Rail, and to the account of the Contractor.
- 2.2.14.5 The Contractor shall undertake work on the rectification of any defects that may arise during the guarantee period within 7-days of him being notified by Transnet Freight Rail of such defects.
- 2.2.14.6 Should the Contractor fail to comply with the requirements stipulated above, Transnet Freight Rail shall be entitled to undertake the necessary repair work or effect replacement of defective apparatus

or materials, and the Contractor shall reimburse Transnet Freight Rail the total cost of such repair or replacements, including the labour costs incurred in replacing defective material.

2.2.14.7 Any specific type of fault occurring three times within the guarantee period and which cannot be proven to be due to other faulty equipment not forming part of this contract e.g., faulty locomotive or overhead track equipment, etc., shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the Project Manager/ Technical Manager or Supervisor and at the cost of the Contractor.

2.2.14.8 If urgent repairs have to be carried out by Transnet Freight Rail staff to maintain supply during the guarantee period, the Contractor shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse Transnet Freight Rail the cost of material and labour.

2.2.15 Quality and inspection

2.2.15.1 Transnet Freight Rail shall inspect the equipment under contract on the premises of the Manufacturer or successful Contractor.

2.2.15.2 The Contractor shall notify Transnet Freight Rail 14 days in advance of such an inspection date.

2.2.15.3 The Contractor shall apply 14 days in advance for the date of energizing and ensure that all work is completed before any commissioning can take place.

2.2.15.4 The Contractor shall be responsible to issue a compliance certificate in terms of SANS 0142 for each site before energizing of the equipment shall take place.

2.2.16 Scrap materials

2.2.16.1 All redundant/old materials/equipment to be removed from site and transported to TFR Scrap Bank in Salt River.



ANNEXURE C

BLE52257

MEASUREMENTS AND PAYMENT**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF RECTIFIERS, AC/DC DISTRIBUTION PANEL, PCB CONTROL PANELS AND POSITIVE ISOLATOR SWITCHES AT MULDERVLEI 3KV DC TRACTION SUBSTATION**

- 3.1 Preliminary and general shall be measured and paid for as lump sum. Tendered rates must therefore include labour, site establishment, transport, civil works, soil testing, preparations and all necessary resources required to complete the works.
- 3.2 Dismantling, removal and transportation of old equipment from site to Salt River Scrap Bank shall be measured and paid for as lump sum. Tendered rates must therefore include delivery of equipment and all necessary resources to complete this item.
- 3.3 Supply and installation of copper busbars from the transformer to the Rectifier, to Reactor coil, and to the positive isolator including negative busbar shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials and installation of all busbars including brackets, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.4 Supply and installation of Positive Isolator complete with fibre optic under voltage relay shall be measured and paid for per positive isolator installed. Tendered rates must therefore include supply, delivery of materials and installation including brackets, insulators, clamps, bolts, nuts, warning signs etc and all necessary resources and works to complete this item.
- 3.5 Supply and installation of 5 MW rectifiers complete with diode monitoring and fan control shall be paid for per rectifier. Tendered rates must therefore include supply, delivery of materials and installation including brackets, insulators, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.6 Supply and installation of auxiliary control cable (50 mm² x 4core) to the Auxiliary transformer and inside the control panel shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials, installation, trenching and laying of cable including brackets, clamps, joints, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.7 Relocation and installation of auxiliary isolating switch inside the substation control panel shall be measured and paid for per isolating switch. Tendered rates must therefore include relocation, installation, including brackets, clamps, bolts, nuts etc and all necessary resources and civil works to complete this item.
- 3.8 Supply of new mechanical interlocking set shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials and installation including brackets, insulators, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.9 Supply of cables for the new DC earth leakage system (Indoor earthing) and all control and power cables shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials and installation including brackets, insulators, clamps, bolts, nuts etc and all necessary resources and works to complete this item.

- 3.10 Supply, installation and black painting of checker plates where old control panels are currently located shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials and installation including brackets, painting, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.11 Supply and installation of AC/DC distribution panel shall be measured and paid for; per control panel installation. Tendered rates must therefore include supply, delivery of materials and installation including, Rewiring of the protection interlock in panel for phase failure and low SF6 gas with distribution switchgear, brackets, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.12 Supply and Installation of charger shall be measured and paid for; for charger installed. Tendered rates must therefore include supply, delivery of materials and installation including brackets, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.13 Supply and installation of all positive cables shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials and installation including brackets, insulators, clamps, bolts, nuts etc. and all necessary resources and works to complete this item.
- 3.14 Supply and installation of earthing system for indoor yard shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials, installation, and laying of earthing cables including brackets, clamps, terminations, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.15 Supply of polish and polishing of substation floor with red oxide shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of paint, painting of floor etc and all necessary resources and works to complete this item.
- 3.16 Rewiring of a room fan with adjustable temperature sensor or control in the panel shall be measured and paid for per rewiring installed. Tendered rates must therefore include rewiring, delivery of materials, cabling and all necessary resources and works to complete this item.
- 3.17 Supply and installation of low SF6 gas indication in control circuitry shall be measured and paid for per indication installed. Tendered rates must therefore include supply, delivery of materials and installation including, brackets, insulators, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.18 Supply and installation of AC Primary Circuit Breaker control panel shall be measured and paid for per control panel installed. Tendered rates must therefore include supply, delivery of materials and installation including brackets, FP-2004 relay, FP-2004_T relay, clamps, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.19 Supply and installation of all control cables from PCB to AC control panel and AC Disconnects shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of materials, installation, and laying of control cables including brackets, clamps, terminations, bolts, nuts etc and all necessary resources and works to complete this item.
- 3.20 Drawings and catalogues shall be measured and paid for as lump sum. Tendered rates must therefore include supply, delivery of all drawings and catalogues.

ANNEXURE D

BLE52257

SCHEDULE OF APPLICABLE SPECIFICATIONS, INSTRUCTIONS & DRAWINGS

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF RECTIFIER, AC/DC DISTRIBUTION PANEL, PCB CONTROL PANELS, POSITIVE ISOLATOR SWITCHES, UNDERVOLTAGE CONTROL BOX, CHEKER PLATES, CLEANING OF INDOOR BUILDING AND FLOOR AT MULDESVLEI 3KV DC TRACTION SUBSTATION

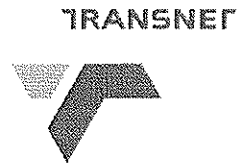
5.1 South African National Standards:

- 5.1.1 SANS 1091 National Colour Standard
- 5.1.2 SANS 8528 Reciprocating internal combustion engine driven alternating current generating set.
- 5.1.3 SANS 10142 Wiring Code

5.2 Transnet Freight Rail:

- 5.2.1 BBB 0496 version 14: 3KV rectifier for traction substations
- 5.2.2 BBB 3620 version 5: 3kV DC earthing arrangement – Traction Substation
- 5.2.3 BBB 3059 version 2: 3kV DC Traction Substation Earthing System For High Voltage Outdoor Yard
- 5.2.4 BBB 5452 version 6 Transnet Freight Rail requirements for installation of electrical equipment for 3kV DC substations
- 5.2.5 BBB 2721 version 10: AC Primary Circuit Breaker Control Panel and AC/DC Distribution Panel for 3kV DC Traction Substation
- 5.2.6 CEE-TBD-0007: Earthing arrangement for traction substations
- 5.2.7 CEE-TBK-0027: Control circuit diagrams – No Volt operation
- 5.2.8 CEE-TBK-0028: Trip, lockout and indication circuit diagram
- 5.2.9 BBB 4724 version 4: Positive Isolator Switch for 3kV DC Traction Substations
- 5.2.10 BBB 2502 version 6: Requirements for battery chargers for 3kV DC traction substations
- 5.2.11 BBB 3005 version 1: 3kV DC Under Voltage Relay manufacturing specification
- 5.2.12 BBC 0198 version 1: Specifications for the supply of cables
- 5.2.13 CEE. 0023.90: Specifications for installation of cables
- 5.2.14 CEE. 0045.2002/1: Painting of steel components of electrical equipment
- 5.2.15 CEE. 0183.2002: Hot dip galvanizing and painting of electrical equipment
- 5.2.16 CEE 0224.2002: Drawings, catalogues, instruction manuals and spares list for electrical equipment supplied under contract

ALL THESE SPECIFICATIONS, INSTRUCTIONS & DRAWINGS WILL BE SENT BY E-MAIL



Annexure E

RFQ NUMBER BLE52257

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF RECTIFIERS AT MULDERSVLEI

REFERENCES :

Please indicate below the company names and contact details of existing customers whom Transnet may contact to seek third party evaluations of your current service levels:

Name of Company	Contact Person	Telephone number

PastPerformanceMaster2013

Respondent's Signature

Date and Company Stamp

TRANSNET LIMITED

E7/1 (July 1998)

SPECIFICATION FOR WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR
HIGH VOLTAGE EQUIPMENT

(This Specification shall be used in Transnet Contracts)

"PREVIEW COPY ONLY"

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1 **DEFINITIONS**

The following definitions shall apply :

Authorised Person. A person whether an employee of Transnet or not, who has been specially authorised to undertake specific duties in terms of Spoornet's publication SAFETY INSTRUCTIONS: HIGH-VOLTAGE ELECTRICAL EQUIPMENT, and who holds a certificate or letter of authority to that effect.

Barrier. Any device designed to restrict access to "live" high-voltage electrical equipment.

Bond. A short conductor installed to provide electrical continuity.

Contractor. Any person or organisation appointed by Transnet to carry out work on its behalf.

Dead. Isolated and earthed.

Electrical Officer (Contracts). The person appointed in writing by the responsible Electrical Engineer in Transnet as the person who shall be consulted by the Contractor in all electrical matters to ensure that adequate safety precautions are taken by the Contractor.

Executive Officer. The person appointed by Transnet from time to time as the Executive Officer to act according to the rights and powers held by and obligations placed upon him in terms of the Contract.

High-Voltage. A voltage normally exceeding 1 000 volts.

Live. A conductor is said to be "live" when it is at a potential different from that of the earth or any other conductor of the system of which it forms a part.

Near. To be in such a position that a person's body or the tools he is using or any equipment he is handling may come within 3 metres of live exposed high-voltage electrical equipment.

Occupation. An authorisation granted by Transnet for work to be carried out under specified conditions on, over under or adjacent to railway lines.

Occupation Between Trains. An occupation during an interval between successive trains.

Project Manager. The person or juristic person appointed by Transnet from time to time as the Project Manager, to administer the Contract according to the powers and rights held by and obligations placed upon him in terms of the Contract.

Responsible Representative. The responsible person in charge, appointed by a contractor, who has undergone specific training (and holds a certificate) to supervise staff under his control to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

Technical Officer. The person or juristic person appointed by Transnet from time to time as the Technical Officer, to administer the Contractor's performance and execution of the Works according to the powers and rights held by and obligations placed upon the Technical Officer in terms of the Contract.

Total Occupation. An occupation for a period when trains are not to traverse the section of line covered by the occupation.

Work on. Work undertaken on or so close to the equipment that the specified working clearances to the live equipment cannot be maintained.

Work Permit. A combined written application and authority to proceed with work on or near dead electrical equipment.

PART A - GENERAL SPECIFICATION

2. AUTHORITY OF OFFICERS OF TRANSNET

- 2.1 The Contractor shall co-operate with the officers of Transnet and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of Transnet's railway lines and high-voltage equipment.
- 2.2 Without limiting the generality of the provisions of 2.1, any duly authorised representative of Transnet, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of Transnet assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

3. CONTRACTOR'S REPRESENTATIVES

- 3.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Technical Officer with the names, addresses and telephone numbers of the representatives.
- 3.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

4. OCCUPATIONS AND WORK PERMITS

- 4.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Technical Officer and at times to suit Transnet requirements.
- 4.2 The Contractor shall organise the Works in a manner, which will minimise the number and duration of occupations and work permits required.
- 4.3 Transnet will not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.
- 4.4 The Contractor shall submit to the Technical Officer, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 14 days before they are required. Transnet does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 4.5 Transnet reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 4.6 to 4.8.
- 4.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.
- 4.7 When the Contractor is notified less than 2 hours before the schedule starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit.
- 4.8 Reimbursement the Contractor for any loss of working time in terms of 4.6 and 4.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Technical Officer certifies that no other work on which the labour and plant could be employed was immediately available.
- 4.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain

from the Technical Officer written confirmation of the date, time and duration of the occupation.

- 4.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of form No. T.1276 signifying that he is aware of the limits within which work may be undertaken. After the work for which the permit was granted has been completed, or when the work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of the T.1276 form, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

5. SPEED RESTRICTIONS AND PROTECTION

- 5.1 When speed restrictions are imposed by Transnet because of the Contractor's activities, the Contractor shall organise and carry out his work so as to permit the removal of the restrictions as soon as possible.
- 5.2 When the Technical Officer considers protection to be necessary the Contractor shall, unless otherwise agreed, provide all protection including flagmen, other personnel and all equipment for the protection of Transnet's and the Contractor's personnel and assets, the public and including trains. Transnet will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Technical Officer, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in appendixes 1 to 4.
- 5.3 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction, which may be given by Transnet personnel providing protection.

6. ROADS ON TRANSNET PROPERTY

The provision of clause 25 of the E.5, General Conditions of Contract, or clause 23 of the E.5 (MW), General Conditions of Contract for Maintenance Works, shall apply to the use of existing roads on Transnet's property.

7. CLEARANCES

- 7.1 No temporary works shall encroach on the appropriate minimum clearances set out in Appendixes 1 to 4.

8. STACKING OF MATERIAL

- 8.1 The Contractor shall not stack any material closer than 3 m from the centre line of any railway line without prior approval of the Technical Officer.

9. EXCAVATION, SHORING, DEWATERING AND DRAINAGE

- 9.1 Unless otherwise approved by the Technical Officer any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.

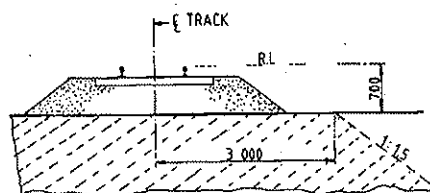


Fig. 1

- 9.2 The Contractor shall provide at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.

- 9.3 Where required by the Technical Officer, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed obtained, before the excavation is commenced.
- 9.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Technical Officer.
- 9.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

10. **FALSEWORK FOR STRUCTURES**

- 10.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Technical Officer and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be signed by a registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.
- 10.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Technical Officer a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Technical Officer to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

11. **PILING**

- 11.1 The Technical Officer will specify the conditions under which piles may be installed on Transnet property.

12. **UNDERGROUND SERVICES**

- 12.1 No pegs or stakes shall be driven or any excavation made before the Contractor has established that there are no underground services, which may be damaged thereby.
- 12.2 Any damage shall be reported immediately to the Technical Officer, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

13. **BLASTING**

- 13.1 The provisions of clause 23 of the E.5, General Conditions of Contract or clause 21 of the E.5 (MW), General Conditions of Contract for Maintenance Work, shall apply to all blasting operations undertaken in terms of the Contract.
- 13.2 The Contractor shall provide proof that he has complied with the provisions of clauses 10.17.1 to 10.17.4 of the Explosives Regulations (Act 26 of 1956 as amended).
- 13.3 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Technical Officer, assisted by flagmen with the necessary protective equipment, will be in communication with the controlling railway station. Only this person will be authorised to give the Contractor permission to blast, and the Contractor shall obey his instructions implicitly regarding the time during which blasting may take place.
- 13.4 The flagmen described in 13.3, where provided by Transnet, are for the protection of trains and Transnet property only, and their presence does not relieve the Contractor in any manner of his responsibilities in terms of Explosives Act or Regulations, or any obligation in terms of this Contract.
- 13.5 The person described in 13.3 will record in a book provided and retained by Transnet the dates and times -
- (i) when each request is made by him to the controlling station for permission to blast;
 - (ii) when blasting may take place;

- (iii) when blasting actually takes place; and
- (iv) when he advises the controlling station that the line is safe for the passage of trains.

13.6 Before each blast the Contractor shall record in the same book, the details of the blast to be carried out. The person appointed by the Technical Officer and the person who will do the blasting shall both sign the book whenever an entry described in 13.5 is made.

13.7 The terms of clause 27 hereof shall be strictly adhered to.

14. **RAIL TROLLEYS**

14.1 The use of rail trolleys or trestle trolleys on a railway line for working on high voltage equipment will be permitted only if approved by the Technical Officer and under the conditions stipulated by him.

14.2 All costs in connection with such trolley working requested by the Contractor shall, unless otherwise agreed, be borne by the Contractor, excluding the costs of any train protection services normally provided free of charge by Transnet.

15. **SIGNAL TRACK CIRCUITS**

15.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of a railway line/lines.

15.2 No signal connections on track-circuited tracks shall be severed without the Technical Officer's knowledge and consent.

16. **PENALTY FOR DELAYS TO TRAINS**

16.1 If any trains are delayed by the Contractor and the Technical Officer is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor of R5 000 per hour or part thereof for the period of delay, irrespective of the number of trains delayed.

PART B - ADDITIONAL SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE ELECTRICAL EQUIPMENT

17. **GENERAL**

- 17.1 This specification is based on the contents of Spoornet's publication SAFETY INSTRUCTIONS, HIGH-VOLTAGE ELECTRICAL EQUIPMENT, as amended, a copy of which will be made available on loan to the Contractor for the duration of the contract. These instructions apply to all work near live high-voltage equipment maintained and/or operated by Transnet, and the onus rests on the Contractor to ensure that he obtains a copy.
- 17.2 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Safety Instructions : High-Voltage Electrical Equipment.
- 17.3 The Safety Instructions : High-Voltage Electrical Equipment cover the minimum safety precautions which must be taken to ensure safe working on or near high-voltage electrical equipment, and must be observed at all times. Should additional safety measures be considered necessary because of peculiar local conditions, these may be ordered by and at the discretion of the Electrical Officer (Contracts).
- 17.4 This specification must be read in conjunction with and not in lieu of the Safety Instructions : High-Voltage Electrical Equipment.
- 17.5 The Contractor shall obtain the approval of the Electrical Officer (Contracts) before any work is done which causes or could cause any portion of a person's body or the tools he is using or any equipment he is handling, to come within 3 metres of any live high-voltage equipment.
- 17.6 The Contractor shall regard all high-voltage equipment as live unless a work permit is in force.
- 17.7 Safety precautions taken or barriers erected shall comply with the requirements of the Electrical Officer (Contracts), and shall be approved by him before the work to be protected is undertaken by the Contractor. The Contractor shall, unless otherwise agreed, bear the cost of the provision of the barriers and other safety precautions required, including the attendance of Transnet staff where this is necessary.
- 17.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

18. **WORK ON BUILDINGS OR FIXED STRUCTURES**

Before any work is carried out or measurements are taken on any part of a building, fixed structure or earthworks of any kind above ground level situated within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted to ascertain the conditions under which the work may be carried out.

- 18.2 No barrier erected to comply with the requirements of the Electrical Officer (Contracts) shall be used as temporary staging or shuttering for any part of the Works.
- 18.3 The shuttering for bridge piers, abutments, retaining walls or parapets adjacent to or over any track may be permitted to serve as a barrier, provided that it extends at least 2,5 metres above any working level in the case of piers, abutments and retaining walls and 1,5 metres above any working level in the case of parapets.

19. **WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING**

- 19.1 No person shall stand, climb or work whilst on any platform, surface or foothold higher than the normal unrestricted places of access, namely -
- (i) the floor level of trucks;
 - (ii) external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and

(iii) walkways between coaches and locomotives.

When in these positions, no person may raise his hands or any equipment or material he is handling above his head.

- 19.2 In cases where the Contractor operates his own rail mounted equipment, he shall arrange for the walkways on this plant to be inspected by the Electrical Officer (Contracts) and approved, before commencement of work.
- 19.3 The handling of long lengths of material such as metal pipes, reinforcing bars, etc should be avoided, but if essential they shall be handled as nearly as possible in a horizontal position below head height.
- 19.4 The Responsible Representative shall warn all persons under his control of the danger of being near live high-voltage equipment, and shall ensure that the warning is fully understood.
- 19.5 Where the conditions in 19.1 to 19.3 cannot be observed the Electrical Officer (Contracts), shall be notified. He will arrange for suitable Safety measures to be taken. The Electrical Officer (Contracts), may in his discretion and in appropriate circumstances, arrange for a suitable employee of the Contractor to be specially trained by Spoornet and at its costs, as an Authorised Person to work closer than 3 metres from live overhead conductors and under such conditions as may be imposed by the Senior responsible Electrical Engineer in Transnet.

20. USE OF EQUIPMENT

20.1 Measuring Tapes and Devices

- 20.1.1 Measuring tapes may be used near live high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the live equipment.
- 20.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the live high-voltage equipment.
- 20.1.3 Special measuring devices longer than 2 metres such as survey staves and rods may be used if these are of non conducting material and approved by the responsible Electrical Engineer in Transnet, but these devices must not be used within 3 metres of live high-voltage equipment in rainy or wet conditions.
- 20.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in 20.1.1 to 20.1.3 are required.
- 20.1.5 The restrictions described in 20.1.1 to 20.1.3 do not apply on a bridge deck between permanent parapets nor in other situations where a barrier effectively prevents contact with the live high-voltage equipment.

20.2 Portable Ladders

- 20.2.1 Any type of portable ladder longer than 2 metres may only be used near live high-voltage equipment under the direct supervision of the Responsible Representative. He shall ensure that the ladder is always used in such a manner that the distance from the base of the ladder to any live high-voltage equipment is greater than the fully extended length of the ladder plus 3 metres. Where these conditions cannot be observed, the Electrical Officer (Contracts) shall be advised, and he will arrange for suitable safety measures to be taken.

21. CARRYING AND HANDLING MATERIAL AND EQUIPMENT

- 21.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material, which exceeds 2 metres in length, shall be carried completely below head height near live high-voltage equipment. For maximum safety two or more persons so as to maintain it as nearly as possible in a horizontal position should carry such material. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any live high-voltage equipment.
- 21.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any live high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.
- 21.3 The presence of overhead power lines shall always be taken account of especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

22. PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.

- 22.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:
- (i) If the distance between the point at which the pole is to be erected or removed and the nearest live high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.
 - (ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with live high-voltage equipment.
- 22.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.
- 22.3 The provisions of clauses 22.1 and 22.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

23. USE OF WATER

- 23.1 No water shall be used in the form of a jet if it can make contact with any live high-voltage equipment or with any person working on such equipment.

24. USE OF CONSTRUCTION PLANT

- 24.1 "Construction plant" entails all types of plant including cranes, piling frames, boring machines, excavators, draglines, dewatering equipment and road vehicles with or without lifting equipment.
- 24.2 When work is being undertaken in such a position that it is possible for construction plant or its load to come within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted. He will arrange for an Authorised Person to supervise the work and to ensure that the plant is adequately earthed. The Electrical Officer (Contracts) will decide whether further safety measures are necessary.
- 24.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.
- 24.4 When loads are handled by cranes, non-metallic rope hand lines shall be used, affixed to such loads so as to prevent their swinging and coming within 3 metres of live high-voltage equipment.
- 24.5 Clauses 24.1 to 24.4 shall apply mutatis mutandis to the use of maintenance machines of any nature.

25. **WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT**

- 25.1 If the Responsible Representative finds that the work cannot be done in safety with the high-voltage electrical equipment live, he shall consult the Electrical Officer (Contracts) who will decide on the action to be taken.
- 25.2 If a work permit is issued the Responsible Representative shall -
- (i) before commencement of work ensure that the limits within which work may be carried out have been explained to him by the Authorised Person who issued the permit to him, and that he fully understands these limits.
 - (ii) sign portion C of the permit before commencement of work;
 - (iii) explain to all persons under his control the limits within which work may be carried out, and ensure that they fully understand these limits;
 - (iv) care for the safety of all persons under his control whilst work is in progress; and
 - (v) withdraw all personnel under his control from the equipment on completion of the work before he signs portion D of the work permit.

26. **TRACTION RETURN CIRCUITS IN RAILS**

- 26.1 DANGEROUS CONDITIONS CAN BE CREATED BY REMOVING OR SEVERING ANY BOND.
- 26.2 Broken rails with an air gap between the ends, and joints, at which fishplates are removed under "broken bond" conditions, are potentially lethal. The rails on either side of an air gap between rail ends on electrified lines shall not be touched simultaneously until rendered safe by Transnet personnel.
- 26.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Technical Officer at least 7 days written notice when removal of such bonds is necessary.
- 26.4 No work on the track which involves interference with the traction return rail circuit either by cutting or removing the rails, or by removal of bonds shall be done unless the Electrical Officer (Contracts) is consulted. He will take such precautions as may be necessary to ensure continuity of the return circuit before permitting the work to be commenced.

27. **BLASTING**

- 27.1 The Contractor shall obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 14 days notice of his intention to blast.
- 27.2 No blasting shall be done in the vicinity of electrified lines unless a member of Transnet's electrical personnel is present.
- 27.3 The terms of clause 13 hereof shall be strictly adhered to.

28. **HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY TRANSNET**

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by Transnet, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

Such equipment includes: -

- (i) Eskom and municipal equipment;
- (ii) the Contractor's own power supplies; and

- (iii) electrical equipment being installed but not yet taken over from the Contractor.

"PREVIEW COPY ONLY"

CONTRACTORS "HEALTH & SAFETY FILE" CHECKLIST



Contractor's Name:

Location

Contract Number

<i>Name</i>	<i>Place</i>	<i>Number</i>
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Description of Contract:

CONTENTS OF THE HEALTH & SAFETY FILE

The safety file shall at least contain "but not limited to" the following documentation to be available ON Site for inspection purposes by The Client/TFR

	YES	NO
1. Notice of construction work given to Dept. of Labour according to Act 85(where applicable).		
2. Letter of good standing – Compensation Commissioner.(Valid for duration of project)		
Letter present and valid until _____		
3. Section 37(2) agreements. (Written defined responsibilities by mandataries)		
4. Safety File present with Safety Plan "which shall contain": (File to be signed by Project/Maintenance Supervisor) <ul style="list-style-type: none"> • Appointments letters i.e. copies. <input type="checkbox"/> (tick if completed and present) (CEO, Person responsible for safety on site, SHE Reps, First Aiders, Machine Operators, Sub-contractors etc.) • Risk Assessment done/job and area specific e.g. running trains/crossings overheads <input type="checkbox"/> (tick if completed and present) • Written Safe Work Procedures available for high risk jobs <input type="checkbox"/> (tick if completed and present) • Job Observations done on high risk jobs <input type="checkbox"/> (tick if completed and present) • Fall protection plan available and implemented if working on heights <input type="checkbox"/> (tick if completed and present) • Checklists of plant and equipment on site <input type="checkbox"/> (Scaffolding, Ladders, Electrical tools, RMD, lawn mowers, brush cutters etc.) 		
5. Your Health and Safety structure on site. <ul style="list-style-type: none"> • Company Organogram available on safety file including for sub-contractors on TFR site. 		
6. Emergency equipment and procedures e.g. First Aid box, Fire Extinguishers, Telephone no.		
7. Competency certificates/training "i.e. copies". <ul style="list-style-type: none"> • "Competent persons" as required by the Regulations (Construction Regs.) • Machine operator's competencies (Large & Small plant, brush cutter operators). • Lifting Equipment operators/ Scaffolding erector/inspector competencies. 		
8. Signed Health and Safety induction records, Site specific and induction done in conjunction with a representative of Client. (Client (Operation/Infra/CAB) to highlight additional safety risk e.g. Running trains, overheads, ablutions etc.)		
9. Copies of medical surveillance records of contractors on site. <ul style="list-style-type: none"> • Fitness certificates e.g. working at heights. 		
10. Test certificates (e.g. Gases, Vapours etc. in confined spaces).		
11. Minutes of safety meetings held on site available. (Opening meeting/Site meetings)		
12. Daily Safety talks by Contractor, including attendance register (Morning Green Areas held on daily awareness)		
13. Copies of hazardous waste removal and disposal certificates to be received before payment.		
14. Copies of audit reports. (Contractor's & Transnet)		
15. Copies of site inspections. (Initial, daily and final site inspection before payment)		
16. Incident investigation records available on file. (Copies of WCL 2 and TFR CMB 274 investigation)		
17. Permits / Occupation certificate in place and signed for duration of project (hot work permits)		
18. Any notices served by Dept. of Labour or non-compliances/complaints received from clients.		

* If the response to any of the above questions was negative, what actions were taken to rectify it?

<i>Signature</i>	<i>Signature</i>
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Maintenance Supervisor, T/O of Contract

Contractor Site Supervisor

Rousseau 27/07/2012
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