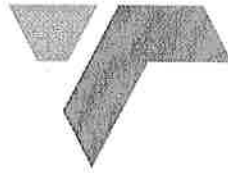


**TRANSNET**



**TRANSNET SOC LIMITED**  
(REGISTRATION NO.1990/000900/30)  
TRADING AS  
**TRANSNET FREIGHT RAIL**

**NEC3 Engineering & Construction Short Contract  
(ECSC)**

**RFQ No. ERAC NS1853 14810**

The routine testing on 9 traction and signal distribution  
substations under the control of the Depot Engineer,  
Polokwane

Opening on: 9<sup>th</sup> July 2014  
Closing on: 29<sup>th</sup> July 2014  
Validity period ending on: 21<sup>st</sup> October 2014

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## Part T1: Tendering Procedures

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## PART T1: TENDERING PROCEDURES

### T1.1 TENDER NOTICE AND INVITATION TO TENDER

RFQ No. ERAC NS1853 14810

Transnet SOC Limited trading as Transnet Freight Rail invites tenders for the routine testing on nine traction and signal distribution substations under the control of the Depot engineer, Polokwane.

On or after Wednesday, 9<sup>th</sup> July, 2014, the RFQ documents may be inspected at, and are obtainable from the office of the Transnet Freight Rail Advice Centre, Inyanda House 1, Ground Floor, 21 Wellington Road, Parkton, Johannesburg, **free of charge** and will only be available for collection between 09:00 and 15:00 from Wednesday, 9<sup>th</sup> July 2014 until Tuesday, 15<sup>th</sup> July 2014.

Queries relating to the administrative issues of these documents may be addressed to:

Mr. Nico Swart

Tel. No. 012 315 3083

Fax.: 012 315 2138

E-mail: [nico.swart3@transnet.net](mailto:nico.swart3@transnet.net)

#### FORMAL BRIEFING

A **compulsory information briefing session** will be conducted in the TFR Jacaranda Boardroom, 3<sup>rd</sup> floor, Nzasm Building, c/o Paul Kruger and Minnaar Streets, Pretoria on Wednesday, **16<sup>th</sup> July 2014 at 09h00**. No site visit will be conducted after the briefing session. Respondents shall be responsible for their own travel arrangements and cost regarding the briefing session.

Contact person: **Mr N G Sikhakane, Engineering Technician (Electrical) at cell 083 288 9502.**

Please note that when visiting a site, safety boots and a safety vest should be worn. As the site visit may be held in an operational area of Transnet, all people entering the premises **may be subjected to a substance abuse test**. This is a standard operational requirement for TFR, when entering any operational area in order that TFR may address the risk of injury.

Any person that fails such test will not be permitted to enter the premises and thereby forfeits. Rights to be allowed access to the briefing session and will subsequently not be permitted to submit a bid for the RFQ.

- A Certificate of Attendance in the form set out in Returnable Schedules must be completed.
- Submitted with your Tender as proof of attendance is required for a compulsory site meeting and/or RFQ briefing.
- Respondents failing to attend the compulsory RFQ briefing/site inspection will be disqualified.

- Respondents without a valid RFQ document in their possession will not be allowed to attend the RFQ briefing/site visit.
- The briefing session will start punctually at 09h00 and information will not be repeated for the benefit of Respondents arriving late.

Tenders may only be submitted on the tender documentation that is issued. Telegraphic, telephonic, facsimile and late tenders will not be accepted.

Tenders, which must be completed as indicated in Tender Data of this RFQ are to be submitted as follows:

**METHOD:** Hand delivered: The envelope is to be deposited in the tender box which is located in the foyer on the ground floor and should be addressed as below:

**CLOSING DATE AND TIME:** **Tuesday, 29<sup>th</sup> July 2014, 10h00**

**CLOSING VENUE:** The Secretary  
Transnet Acquisition Council  
Ground floor, Tender box  
Inyanda House 1  
21 Wellington Road  
Parktown  
Johannesburg  
2001

It should be noted that the tender box is located at the main entrance and is accessible to the public 24 hours a day, 7 days a week

#### A) Responses to RFQ

Responses to this RFQ tender must not include documents or reference relating to any other Tender or proposal. Any additional conditions must be embodied in an accompanying letter. No slips are to be attached to the tender documents. Any additional conditions must be embodied in an accompanying letter. Alterations, additions or deletions must not be made by the Respondent to the actual tender documents. Tenders submitted by Respondents must be neatly bound and the inclusion of loose documents must be avoided.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Compliance of tender(s) with Transnet's requirements is the sole responsibility of the Respondent and any cost incurred in subsequent modifications to or replacement of equipment accepted by Transnet SOC Limited in good faith on the grounds of certified compliance with specified standards by the Contractor and in fact found to be inadequate in such respects, will be to the relevant Respondents account.

## B) 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" to companies who provide a valid B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

### 1.1 B-BBEE Scorecard and Rating

1.1.1 As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Respondents are to note that the following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R1 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R1 000 000 (all applicable taxes included).
- Bidders are to note that if the 80/20 preference point system is stipulated in this RFQ and if all Bids received exceed R1 000 000.00, the RFQ must be cancelled.
- The value of this bid is estimated to be below R1000 000 (all applicable taxes included); and therefore the **80/20** system shall be applicable.

1.1.2 When Transnet invites prospective suppliers to submit Proposals for its various expenditure programmes, it requires Respondents to have their B-BBEE status verified in compliance with the Codes of Good Practice issued in terms of the Broad Based Black Economic Empowerment Act No. 53 of 2003.

1.1.3 The Department of Trade and Industry recently revised the Codes of Good Practice on 11 October 2013 [Government Gazette No. 36928]. The Revised Codes will replace the Black Economic Empowerment Codes of Good Practice issued on 9 February 2007. The Revised Codes provide for a one year transitional period starting 11 October 2013. During the transitional period, companies may elect to be measured in terms of the Revised Codes or the 2007 version of the Codes. After the first year of the implementation of the Revised Codes, B-BBEE compliance will be measured in terms of the Revised Codes without any discretion. Companies which are governed by Sector-specific Codes will be measured in terms of those Sector Codes.

1.1.4 As such, Transnet will accept B-BBEE certificates issued based on the Revised Codes. Transnet will also continue to accept B-BBEE certificates issued in terms of the 2007 version of the Codes provided it was issued before 10 October 2014. Thereafter, Transnet will only accept B-BBEE certificates issued based on the Revised Codes.

1.1.5 Respondents are required to complete Annexure A [the B-BBEE Preference Point Claim Form] and submit it together with proof of their B-BBEE Status as stipulated in the Claim Form in order to obtain preference points for their B-BBEE status.

1.1.6 **Note: Failure to submit a valid and original B-BBEE certificate or a certified copy thereof at the closing date of this RFQ will result in a score of zero being allocated for B-BBEE.**



## 2.0 Communication

2.1 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.

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

Name: **Yvonne Scannell** (tel. **012 3152059**) Email: **Yvonne.scannell@transnet.net**

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

2.4 Telephone: **011 544 9486** Email: **prudence.nkabinde@transnet.net**

## 3.0 Tax Clearance

3.1 The Respondent's original and valid Tax Clearance Certificate must accompany the tender. Note that no business shall be awarded to any Respondent whose tax matters have not been declared by SARS to be in order.

## 4.0 VAT Registration

4.1 The valid VAT registration number must be stated here: \_\_\_\_\_ [if applicable].

## 5.0 Legal Compliance

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

## 6.0 Changes to Tenders

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

## 7.0 Pricing

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

## 8.0 Prices Subject to Confirmation

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

## 9.0 Negotiations

9.1 Transnet reserves the right to undertake post-tender negotiations with selected Respondents or any number of shortlisted Respondents.

## 10.0 Binding Offer

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

## 11.0 Disclaimers

11.1 Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Tender 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 Tender which does not conform to instructions and specifications which are detailed herein;
- disqualify Tenders submitted after the stated submission deadline;
- not necessarily accept the lowest priced Tender;
- reject all Tenders, if it so decides;
- place an order in connection with this Tender 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/Service Provider; or make no award at all.
- Transnet reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another bidder.
- Transnet reserves the right to lower the threshold for Technical by **10%** [ten percent] if no Bidders pass the predetermined minimum threshold.
- Transnet reserves the right to accept the whole or any part of a tender. Transnet also reserves the right to negotiate terms and conditions with all, or a short listed group of contenders, or the preferred tenderer, should it be deemed necessary.

## 12.0 Transnet's supplier integrity pact

12.1 Transnet's Integrity Pact requires a commitment from suppliers and Transnet that they will not engage in any corrupt and fraudulent practices, anti-competitive practices; and act in bad faith towards each other. The Integrity Pact also serves to communicate Transnet's Gift Policy as well as the remedies available to Transnet where a Respondent contravenes any provision of the Integrity Pact.

12.2 Respondents are required to familiarise themselves with the contents of the Integrity Pact which is available on the Transnet Internet site [www.transnet.net/Tenders/Pages/default.aspx] or on request. Furthermore, Respondents are required to certify that they have acquainted themselves with all the documentation comprising the Transnet Integrity Pact and that they fully comply with all the terms and conditions stipulated in the Transnet Supplier Integrity Pact as follows:

YES	
-----	--

NO	
----	--



Should a Respondent need to declare previous transgressions or a serious breach of law in the preceding 5 years as required by Annexure A to the Integrity Pact, such declaration must accompany the Respondent's bid submission.

Transnet invites its valued suppliers to report any allegations of fraud, corruption or other unethical activities to Transnet Tipp-offs Anonymous , at any of the following addresses/contact numbers:-

- Toll free anonymous hotline - 0800 003 056
- E-mail: [Transnet@tip-offs.com](mailto:Transnet@tip-offs.com)
- Fax number 0800 007 788
- Freepost DN 298, Umhlanga rocks, 4320.

**CONFIDENTIALITY IS GUARANTEED**

"PREVIEW COPY ONLY"

## SUPPLIER CODE OF CONDUCT

Transnet aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- The Transnet Supply Chain Policy
- Section 217 of the Constitution - the five pillars of Public PSCM [Procurement and Supply Chain Management]: fairness, equity, transparency, competitiveness and cost effectiveness;
- The Public Finance Management Act [PFMA];
- The Preferential Procurement Policy Framework Act [PPPFA];
- The Broad-Based Black Economic Empowerment Act [B-BBEE]; and
- The Prevention and Combating of Corrupt Activities Act.

This Code of Conduct has been included in this RFQ to formally appraise prospective Transnet Suppliers of Transnet's expectations regarding the behaviour and conduct of its Suppliers.

### Prohibition of bribes, kickbacks, unlawful payments, and other corrupt practices

Transnet is in the process of transforming itself into a self-sustaining State Owned Company [SOC], actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

- a) *Transnet will not participate in corrupt practices and therefore expects its Suppliers to act in a similar manner.*
- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions and payments to our Suppliers.  
Employees must not accept or request money or anything of value, directly or indirectly, to:
    - ✖ illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
    - ✖ win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions; or
    - ✖ gain an improper advantage.
  - There may be an occasion when a Supplier is confronted with fraudulent or corrupt behaviour by a Transnet employee. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts [0800 003 056].
- b) *Transnet is firmly committed to the ideas of free and competitive enterprise.*
- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust.

- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing B-BBEE spend [fronting].
- c) *Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.*
- Generally, Suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our Suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
  - ✦ misrepresentation of their product [e.g. origin of manufacture, specifications, intellectual property rights];
  - ✦ collusion;
  - ✦ failure to disclose accurate information required during the sourcing activity [e.g. ownership, financial situation, B-BBEE status];
  - ✦ corrupt activities listed above; and
  - ✦ harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the Supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

#### Conflicts of interest

A conflict of interest arises when personal interests or activities influence [or appear to influence] the ability to act in the best interests of Transnet. Examples include, but are not limited to:

- Transnet employees awarding business to entities in which their family members or business associates have an interest
- Transnet employees having a financial interest in a bidding entity

Bidding entities are required to disclose any interest/s which exists between themselves and any employee and/or Transnet Board member.

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF WITNESS

\_\_\_\_\_  
SIGNATURE OF RESPONDENT

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## Part T1.2: Tender Data

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"PREVIEW COPY ONLY"

## T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annexure F of the CIDB Standard for Uniformity in Construction Procurement. (January 2009) as published in government Gazette No. 31823, Board Notice 12 of 2009 of 30 January 2009, subsequently amended (May 2010), Board Notice 86 of 2010. (See [www.cidb.org.za](http://www.cidb.org.za)).

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Data
F.1.1	The <i>Employer</i> is <b>Transnet SOC Limited.</b> <b>(Reg. No 1990/000900/30)</b>
F.1.2	The tender documents issued by the <i>Employer</i> comprise:  <b>Part T: The Tender</b>  <b>Part T1: Tendering procedures</b> T1.1 Tender notice and invitation to tender T1.2 Tender data  <b>Part T2: Returnable documents</b> T2.1 List of Returnable Documents T2.2 Returnable Schedules  <b>Part C: The Contract</b> <b>Part C1: Agreements and contract data</b> C1.1 Form of Offer and Acceptance C1.2 Contract Data: Works Information C1.3 Contract Data: Particular Information  <b>Part C2: Pricing data</b> C2.1 Pricing instructions C2.2 Activity Schedule/Bill of Quantities/Price list  <b>Part C3: Scope of work</b> C3.1 Works Information C3.2 Secondary specifications C3.3 General Specifications  <b>Part C4: Site information</b> C4 Site information

F.1.4 The Employer's agent is: Regional Procurement Manager  
Name: Yvonne Scannell  
Address: Room 222, Nzasm Building, c/o Paul Kruger and Minnaar Streets, Pretoria.  
Tel: 012 3152059  
Cell: 0823357916  
E-mail: Yvonne.scannell@transnet.net

F1.6 The competitive negotiation procedure may be applied

Pre-qualifying criteria:

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

Criterion/Criteria	Explanation
<b>Administrative responsiveness</b>	<p>Completeness of response and mandatory returnable documents.</p> <ul style="list-style-type: none"> <li>Whether the bid has been lodge on time (closing time and date)</li> <li>Whether all mandatory documents were returned by the closing date and time</li> <li>Verify the validity of all mandatory documents</li> </ul>
<b>Substantive responsiveness</b>	<p>Prequalification criteria, if any, must be met and whether the Bid materially complies with the scope and/or specification given.</p> <ul style="list-style-type: none"> <li>A fully completed clause by clause statement of compliance to the project specification.</li> <li>Letter of Good standing with the Compensation commissioner.</li> <li>National diploma in Electrical engineering of key staff in relation to scope of work.</li> <li>Whether the bid contains a completed &amp; signed priced offer</li> </ul>
<b>Functionality Threshold</b>	<p>As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Tenderers are to note that functionality is included as threshold with a prescribed percentage threshold of <b>60%</b>.</p> <p>Previous (relevant) experience, Technical capacity and resources, Health Risk and Safety Plan and delivery period will be considered as part of the technical evaluation.</p>
<b>Final weighted evaluation based on 80/20 preference point system</b>	<ul style="list-style-type: none"> <li>Pricing and price basis [firm] - whilst not the sole factor for consideration, competitive pricing and overall level of unconditional discounts<sup>1</sup> will be critical</li> <li>B-BBEE status of company - Preference points will be</li> </ul>



	awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table indicated in Annexure A.
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Only those Tenderers who attain the minimum number of evaluation points (60 points) for functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from further consideration.

Maximum number of tender evaluation points		
Quality criteria	Sub-criteria	Maximum number of points
Health, risk and safety plan		
Technical capacity (Plant & equipment)		
Experience in the relevant field		
Delivery period		
<b>Maximum possible score for quality</b>		<b>100</b>

F.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

F.2.12 If a Tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the *Employer's* standards and requirements, the details of which may be obtained from the *Employer's* Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the *Employer* to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the *Employer's* standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the *Employer's* standards and requirements.

F.2.13.2 Return all returnable documents to the Employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Parts of the tender offer communicated on paper shall be submitted **as an original, plus one copy.**

F.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

If posted, the envelope must be addressed to:

**The Chairperson  
Transnet Freight Rail Acquisition Council  
P.O. Box 4244  
JOHANNESBURG  
2000**

and must be dispatched in time for sorting by the Post Office to reach the Post Office Box indicated above, before the closing time of the tender.

If delivered by hand, to be deposited to the Transnet Freight Rail Acquisition Council tender box which is located in the foyer, and to be addressed as follows:

**The Chairperson  
Transnet Freight Rail Acquisition Council  
Ground Floor, Inyanda House  
21 Wellington Road  
Park Town  
JOHANNESBURG  
2001**

It should also be noted that the above tender box is accessible to the public 24 hours per day, 7 days a week.

The measurements of the "tender slot" are 500mm wide x 100mm high, and Tenderers must please ensure that tender documents/files are not larger than the above dimensions. Tenders, which are too bulky (i.e. more than 100mm thick) must be split into two or more files, and placed in separate envelopes.

**Identification details:**

Tenders must be submitted before the closing hour on the date as shown in F.2.15 below, and must be enclosed in a sealed envelope which must have inscribed on the outside:

- (a) Name of Tenderer (Insert company Name)
- (b) Contact person and details (Insert details)

- (c) The Tender Number (Insert)
- (d) Description of work (Insert)
- (e) Closing date of tender (Insert)

**NO LATE TENDERS WILL BE ACCEPTED**

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F.2.13.6 A two-envelope procedure will not be followed.

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F.2.13.9 Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

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F.2.15 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

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F.2.16 The tender offer validity period is **12 weeks. (21<sup>st</sup> October 2014).**

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F2.18 Provide, on request by the Employer, any other material information that has bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the Employer for the purpose of a full and fair risk assessment. Should the tenderer not provide this material, or a satisfactory reason as to why it cannot provide, by the time for submission stated in the Employer's request, the Employer may regard the tender offer as non-responsive.

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F.2.19 Access shall be provided for the following inspections, tests and analysis: refer to Works Information.

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F2.22 Return all retained tender documents within 28 days after the expiry of the validity period.

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F.2.23 The Tenderer is required to submit with his tender:

1. A valid original TAX clearance certificate issued by the South African Revenue Services
2. A valid certified SANAS or IRBA B-BBEE accreditation certificate.

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F.3.4 The time and location for opening of the tender offers are:

Time: **12:00** on the closing date of tender.

Location: **Transnet Freight Rail Acquisition Council, Ground Floor, Inyanda House,  
21 Wellington Road, Park Town, JOHANNESBURG**

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F.3.11.3 The procedure for the evaluation of responsive tenders is Method 2.

The financial offer will be scored using Formula 2 (option 1) in Table F1 where the value of  $W_1$  is:

- 90 where the financial value excluding of VAT of one or more responsive tenders received have a value in excess of R1,000,000; or
- 80 where the financial value excluding of VAT of one or more responsive tender offers equals or is less than R1,000,000.

Up to 100 minus  $W_1$  tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed.

Should the BBBEE rating not be provided, Transnet reserves the right to award no points and/or declare the tender void. Transnet also reserves the right to carry out an independent audit of the tenderers scorecard components at any stage from the date of close of the tenders until completion of the contract. Tenderers with no accreditation will score zero points for preferencing.

F.3.13. Tender offers will only be accepted if:

- a) The Tenderer submits **an original valid Tax Clearance Certificate** issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations.
- b) The Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- c) The tenderer does not appear on Transnet list for restricted tenderers.
- d) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer.
- e) The *Employer* is reasonably satisfied that the tenderer has in terms of the Construction Regulations 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.

F.3.17 The number of paper copies of the signed contract to be provided by the Employer is one.

**1 Additional tender conditions:**

- 1.1 The Tenderer is deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the *works* and of the prices stated in the priced Activity Schedule in the *works* Information. The rates and prices (except in so far as otherwise provided in the Tender) collectively cover full payment for the discharge of all his

obligations under the Contract and all matters and things necessary for the proper completion of the works.

- 2 The tenders shall be completed in black ink only.

**3 Tender submissions**

- 3.1 Tenderers shall duly fill in the attached Activity list/BOQ/Price list. Items not reflected in the Activity list/BOQ/Price list, but covered in the particular specification or agreed at site meetings, shall be added to the Activity list/BOQ/Price list by the Tenderer and quoted for accordingly.

- 3.2 Tenderers shall submit qualifications of staff that will be performing the works. Only qualified technical personnel shall perform the works on the electrical equipment or installations thereof.

- 3.3 **Clause by clause statement of compliance to General conditions of Contract, Works Information, Particular specification, technical specifications and General specifications**

- **Tenderers shall complete the clause-by-clause statement of compliance to the various specifications attached to this tender document.**
- *Tenderers shall motivate a statement of non-compliance. Indicate statement of compliance and motivate (give reasons for not complying)*
- *Indicate other statements which don't require compliance.*

**Note:** The committee will take decision to give an average score to companies who indicated their compliance but with short comings.

- 3.4 **The Tenderer shall provide a provisional Gantt or a similar bar chart showing when the works will be done and energised for a typical routine testing.** This chart shall be submitted with the tender submission on the closing date of the tender. Should a Tenderer be successful in winning a tender, a final bar chart shall be submitted within 14 days after the award of the contract to the Employer by the successful Tenderer.

- 3.5 The Tenderer shall indicate how the work will be executed and commissioned. (Approach paper and method statement).

- 3.6 Where equipment offered does not comply with standards or publications referred to in the specification, Tenderers shall state which standards apply and submit a copy in English or certified translation.

- 3.7 Tenderers shall submit descriptive literature consisting of detailed technical specifications, general constructional details and principal dimensions, together with clear illustrations of the equipment offered.

- 3.8 During the duration of the contract period, the successful Tenderer shall be required to inform the Employer / Deputy of any changes to equipment offered and submit detailed information on replacement equipment for approval prior to it being used on this contract.

- 3.9 Tenderer shall submit equipment type test certificates as specified on the contract. These shall be in English or certified translation.



3.10 The Tenderer shall supply a site diary and site instruction books, both books shall be of triplicates carbon copies.

#### 4.0 Tender evaluation process:

##### 4.1 Stage 1a: Test for Administrative Responsiveness

The test for administrative responsiveness will include the following:

Administrative responsiveness check	RFQ Reference
<ul style="list-style-type: none"> <li>Whether the Bid has been lodged on time.</li> </ul>	<i>Clause F.2.1.1</i>
<ul style="list-style-type: none"> <li>Whether all mandatory Returnable schedules were completed and returned by the closing date and time.</li> </ul>	<i>Clause F.2.1.1</i> <i>Clause F.2.1.1</i>
<ul style="list-style-type: none"> <li>Verify the validity of all Returnable documents, i.e. <ul style="list-style-type: none"> <li>Letter of good standing with the Compensation commissioner issued by the Department of Labour.</li> <li>TAX clearance certificate, etc.</li> </ul> </li> </ul>	<i>Clause F.2.1.1</i>

##### Stage 1b: Test for Substantive Responsiveness to RFQ

The test for substantive responsiveness to this RFQ will include the following:

Check for substantive responsiveness	RFQ Reference
<ul style="list-style-type: none"> <li>Whether any general pre-qualification criteria set by Transnet, have been met and whether the bid materially complies with the scope and/or specification given</li> </ul>	<i>Refer to CIDB grading certificate</i> <i>Clause F.2.1.1</i>
<ul style="list-style-type: none"> <li>Whether the Bid contains a priced offer with a completed price list</li> </ul>	<i>Refer to Agreement &amp; Contract Data, Part C3.1&amp; C3.2</i>
<ul style="list-style-type: none"> <li>Whether any technical qualifications of key staff in relation to the scope of work have been met</li> <li>Clause by clause statement of compliance to the General Conditions of Contract, Works information, project specification and general specifications have been completed</li> </ul>	<i>Clause by clause statement of compliance to the General conditions of Contract, the works Information and Technical specifications attached to tender</i>



***The test for substantive responsiveness [Stage Two] must be passed for a Respondent's Proposal to progress to Stage Three for further evaluation***

## Stage 2: Minimum Threshold 60 points for Technical Criteria

The test for the Technical and Functional threshold will include the following:

Technical Criteria	points	RFQ Reference
• Previous (relevant) experience	30	Clause F.2.1.1,
• Health, Risk and Safety plan	20	Clause F.2.1.1
• Technical capacity and resources (reliability, durability, plant and equipment = organisation, logistics and support services)	40	Clause F.2.1.1
• Delivery period	10	
<b>Total Weighting:</b>		<b>100</b>
<b>Minimum qualifying score required:</b>		<b>60</b>

The following applicable values will be utilised when scoring each criterion mentioned above:

Points	Interpretation
0	Non Responsive
1	Poor
2	Average
3	Good
4	Very good
5	Excellent

***The minimum threshold for technical/functionality [Stage Three] must be met or exceeded for a Respondent's Proposal to progress to Stage Four for final evaluation***

Health, Risk and safety plan required:

The respondents tendering for this project must make sure that the following points are covered when compiling their Health, Risk and Safety Plan relevant to the scope of works.

### Part A: Health, Risk and safety Plan

#### SHE Management Structure

- Assignment of duties
- Construction Work supervisor (Construction regulation 6)
- Construction Safety Officer (Construction Regulation 6(7))
- List of Contractors already appointed – list to be revised at least monthly
- Health and Safety Representative (Section 17 of OHS Act)
- Portable fire Equipment Inspector

#### SHE Organisation

- Health & Safety Committee
- Frequency of Meetings
- Minutes of Meetings

#### Risk Assessment / Management

- Risk identification, analysis, mitigating steps, monitoring steps and review plan.
- Risk assessment (Construction Regulation 7)
- Competent person with HIRA certificate

#### Education and Training

- Induction training (Construction Regulation 7(9))
- Site Specific Training.
- Certificate of Competence.

#### Emergency Planning – Evacuation plan

- Client procedure.
- Site Procedure.

#### Health and Safety Communications

- Safety/Toolbox talks.
- Incident Recall.

#### Safe Working Procedures and Methods

- Safe Operating Procedures.
- Task/job observations
- Method Statements.

#### Fall Protection plan

- Documented fall protection plan
- Rescue plan
- Training/Certification
- Fall arrest and protection equipment

#### Personal Protective Equipment and Clothing

- PPE required after all other controls have been considered.
- PPE proof of issue.

#### Project Security

- Security risks identified
- Access control

#### Minimum plant and equipment required:

3-phase generator, hand tools, extension leads, test leads, water container and petrol container, null balance digital earth megger, 10kV digital megger, 4kV DC Hi Pot test set, 25kV AC Hi Pot test set, primary injection test set variable 500/1000 amps, secondary injection test set, variable from 0 to 100 amps, AC/DC injection test set, 200A variable 0 to 250V, LCR meter, Digital millisecond timer, .999 seconds, Multimeter Analog (A.V.O.), 2 x Multimeter digital (R.M.S.), DC Milli-volt injection set, 100mV, Bucholz pump (air compressed pump or bicycle pump), Heating apparatus (oil heating), Emergency lighting.

#### Technical Capacity (Resources):

Electrical trade test certificate with testing of substation protection equipment experience. National diploma in Electrical Engineering with testing of substation protection equipment experience.

Duration of contract: approximately 3 months.

Experience; Refer to returnable schedule to be completed.

#### 4.2 STAGE FOUR: Evaluation and Final Weighted Scoring

##### a) Price Criteria [Weighted score 80 points]:

Evaluation Criteria	RFQ Reference
• Commercial offer	Clause F3.11.3

Transnet will utilise the following formula in its evaluation of Price:

$$PS = 80 \left( 1 - \frac{Pt - Pmin}{Pmin} \right) \text{ OR}$$

Where:

$P_s$  = Score for the Bid under consideration  
 $P_t$  = Price of Bid under consideration  
 $P_{min}$  = Price of lowest acceptable Bid

##### b) Broad-Based Black Economic Empowerment criteria [Weighted score 20 points]

- B-BBEE - current scorecard.

#### 4.3 SUMMARY: Applicable Thresholds and Final Evaluated Weightings

Thresholds	Minimum Percentage [%]
Technical / functionality	60 %

Evaluation Criteria	Final Weighted Scores
Price	80
B-BBEE - Scorecard	20
<b>TOTAL SCORE:</b>	<b>100</b>

#### 4.4 STAGE FIVE: Post Tender Negotiations (if applicable)

Transnet reserves the right to conduct post tender negotiations with a shortlist of Respondent(s). The shortlist could comprise of one or more Respondents. Should Transnet conduct post tender negotiations, Respondents will be requested to provide their best and final offers to Transnet based on such negotiations. A final evaluation will be conducted in terms of 80 and the contract will be negotiated and awarded to the successful Respondent(s).

#### 4.5 Banking Details

BANK: \_\_\_\_\_  
BRANCH NAME / CODE: \_\_\_\_\_  
ACCOUNT HOLDER: \_\_\_\_\_  
ACCOUNT NUMBER: \_\_\_\_\_

#### 4.6 Company Registration

Registration number of company / C.C. \_\_\_\_\_  
Registered name of company / C.C. \_\_\_\_\_

*Only unconditional discounts will be taken into account during evaluation. A discount which has been offered conditionally will, despite not being taken into account for evaluation purposes, be implemented when payment is effected*

#### 4.7 Disclosure of Prices Quoted

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

YES ☐ NO ☐

#### 4.8 Returnable Documents

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

- a) Tenderers are required to submit with their Tenders the **mandatory Returnable Documents**, as detailed below.

***Failure to provide all these Returnable Documents at the Closing Date and time of this RFQ will result in a Tenderer's disqualification. Tenderers are therefore urged to ensure that all these Documents are returned with their Tenders.***

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Tenderer. Please confirm submission of these mandatory Returnable Documents by so indicating [Yes or No] in the table below:

Mandatory Returnable Documents		Submitted [Yes or No]
Part C3 :	Form of Offer and Acceptance and Price list	
Part T2.2:	Returnable schedules: Certificate of attendance of site meeting/RFQ briefing	
Part T2.2:	Returnable Schedules: Clause by clause statement of compliance to the General Conditions of contract, Works information, Particular specification, technical specifications and General specifications.	
	A valid letter of Good standing issued by Department of Labour.	
	National diploma in Electrical Engineering	

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

***Failure to provide all these Returnable Documents may result in a Tenderer's disqualification. Tenderers are therefore urged to ensure that all these documents are returned with their Tenders.***

All Sections, as indicated in the footer of each page, must be signed, stamped and dated by the Tenderer. Please confirm submission of these essential Returnable Documents by so indicating [Yes or No] in the table below:

Essential Returnable Documents		Submitted [Yes or No]
<b>Part T1.1: Tendering Procedures: Notice to Tenderers</b>		
<ul style="list-style-type: none"> <li>- Valid and original B-BBEE Verification Certificate or certified copy thereof [Large Enterprises and QSEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero for preference</li> </ul>		
<ul style="list-style-type: none"> <li>- Valid and original B-BBEE certificate/sworn affidavit or certified copy thereof from auditor, accounting officer or SANAS accredited Verification Agency [EMEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero being allocated for preference</li> </ul>		
<ul style="list-style-type: none"> <li>- In the case of Joint Ventures, a copy of the Joint Venture Agreement or written confirmation of the intention to enter into a Joint Venture Agreement</li> </ul>		



Essential Returnable Documents	Submitted [Yes or No]
- Original valid Tax Clearance Certificate [Consortia / Joint Ventures must submit a separate Tax Clearance Certificate for each party]	
<b>Part T2.1: Returnable documents / Schedules</b>	
Safety plan and fall protection plan in accordance with the construction Regulations of 2003 and Transnet E4E	
Quality assurance / control plan	
Environmental Management plan	
Proposed organisation and staffing	
<b>Vendor application form:</b>	
Certified copies of IDs of shareholder/directors/members [as applicable]	
Certified copies of IDs of shareholder/directors/members [as applicable]	
Certified copies of the relevant company registration documents from Companies and Intellectual Property Commission (CIPC)	
Certified copies of the company's shareholding/director's portfolio	
- Original cancelled cheque or bank verification of banking details	
- Entity's letterhead	
- Certified copy of VAT Registration Certificate [RSA entities only]	
- Certified copy of valid Company Registration Certificate [if applicable]	
- A signed letter from Tenderer's auditor or accountant confirming most recent annual turnover figures	
<b>Part T2.2: Returnable schedules:</b>	
Certificate of attendance at the information briefing session/site inspection	
Resolution of board of directors	
Schedule of Tenderer's experience	
Schedule of proposed subcontractors	
Certificate of authority for joint ventures	
Schedule of plant and equipment	
Record of addenda	
Supplier Declaration form	
Curriculum vitae of key personnel	
Contractual safety clauses which will form part of any resulting contract	
Proposed amendments and qualifications	



Essential Returnable Documents	Submitted [Yes or No]
Labour payment schedule	
<b>Part C3.1:: Contract Data</b> : General Conditions of Contract (NEC3 ECSC3), Works Information and Particular specification	
Part C3.2: Pricing Data: Activity list/BOQ/Price list	
Clause by clause statement of compliance to the Contract Data (General Conditions of Contract,) Works Information, Technical specifications and General specifications.	

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## Part T2: Returnable Documents/Schedules

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## PART T2: RETURNABLE DOCUMENTS / SCHEDULES

### T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

#### 1.0 Returnable documents required for tender evaluation purposes

No	Returnable Documents
1	Letter of Good Standing with the Compensation Commissioner
2	Safety Plan and Fall Protection Plan in accordance with the Construction Regulations of 2003 and Transnet's E4E
3	Quality Assurance/control Plan
4	Environmental Management Plan
5	Proposed Organization and Staffing
6	Certified Copy of Share Certificates CK1 & CK2
7	Certified Copy of Certificate of Incorporation and CM29 and CM9
8	Certified Copy of Identity Documents of Shareholders / Directors / Members (where applicable)
9	Original or certified cancelled cheque <b>OR</b> original or certified letter from the bank verifying banking details (with bank stamp and signature)
10	Current and original or certified Tax Clearance Certificate
11	Certified VAT registration certificate
12	A signed letter from the Accountant/Auditor confirming most recent annual turnover and percentage black ownership in the company <b>AND/OR</b> certified BBBEE certificate and scorecard from an accredited rating agency
13	Programme and method statement
14	Statement of compliance or non-compliance with all clauses of the Scope of Works and all the technical specifications. The clause-by-clause statement of compliance shall take the form of a separate document listing all the clause numbers of all the above specifications indicating the individual statement of compliance or non-compliance. Tenderers shall motivate a statement of non-compliance.

## T2.2 RETURNABLE SCHEDULES

The tenderer must complete the following returnable schedules:

### 2.0 Returnable Schedules required for tender evaluation purposes

No	Returnable schedules
1	Certificate of Attendance of Information Briefing Session or site inspection
2	Certificate of Authority for Signatory (Resolution by Board)
3	Schedule of Tenderers experience
4	Schedule of Subcontractors (where applicable)
5	Certificate of authority for joint ventures (where applicable)
6	Schedule of Plant and Equipment (Tools and Machinery)
7	Record of Addenda to Tender Document
8	Supplier declaration form Duly completed SDF (Supplier declaration form)
9	Experience of Key Staff in the form of Curriculum Vitae
10	Transnet SOC limited contractual safety clauses which will form part of any resulting contract.
11	Proposed amendments and qualifications
12	Labour Payment Schedule

**3.0 Returnable Schedules that will be incorporated into the contract**

- 3.1 Certificate of attendance of information briefing session/site inspection
- 3.2 Certificate of Authority for Signatory (Resolution by Board)
- 3.3 Schedule of Tenderers experience
- 3.4 Schedule of Sub-contractors
- 3.5 Certificate of authority for joint ventures (where applicable)
- 3.6 Schedule of Plant and equipment
- 3.7 Record of Addenda to Tender Document
- 3.8 Supplier declaration form duly completed (SDF)
- 3.9 Experience of key staff in the form of Curriculum Vitae
- 3.10 Transnet SOC Limited contractual safety clauses which will form part of any resulting contract
- 3.11 Proposed amendments and qualifications.
- 3.12 Labour Payment Schedule.

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## Part T2.2: Returnable Schedules

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## CERTIFICATE OF ATTENDANCE AT INFORMATION BRIEFING SESSION/SITE INSPECTION

This is to certify that

\_\_\_\_\_  
(Tenderer) of

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
was represented by the person(s) named below at the compulsory site meeting held for all tenderers at \_\_\_\_\_ (location) on \_\_\_\_\_ (date), starting at \_\_\_\_\_. We acknowledge that the purpose of the meeting was to acquaint ourselves with the Site of the Works and/or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s)(Respondents) attending the meeting/site inspections:

Name: \_\_\_\_\_ Signature \_\_\_\_\_

Capacity: \_\_\_\_\_

Name: \_\_\_\_\_ Signature \_\_\_\_\_

Capacity: \_\_\_\_\_

Attendance of the above persons at the meeting is confirmed by the Employer's representative, namely:

**Briefing session:**

Name: \_\_\_\_\_ Signature \_\_\_\_\_

Capacity: \_\_\_\_\_ Date and time \_\_\_\_\_

**Site visit:**

Name: \_\_\_\_\_ Signature \_\_\_\_\_

Capacity: \_\_\_\_\_ Date and time \_\_\_\_\_

## RESOLUTION OF BOARD OF DIRECTORS

Name of firm \_\_\_\_\_

It was resolved at a meeting of the Board of Directors held on \_\_\_\_\_ that

**FULL NAME(S)**

**SIGNATURE**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

in his capacity of \_\_\_\_\_ is/are hereby authorised to enter into, sign and execute and complete any documents relating to Tenders and/or Contracts for the supply of goods and services.

Confirm: Date \_\_\_\_\_

**FULL NAME** \_\_\_\_\_

**CHAIRMAN**

**FULL NAME** \_\_\_\_\_

**SECRETARY**

Certified true copy:

SIGNED AT \_\_\_\_\_ ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_

20 \_\_\_\_\_

### SCHEDULE OF THE TENDERER'S EXPERIENCE

The following is a statement of similar work successfully executed by myself/ourselves:

Employer, contact person and telephone number	Description of contract	Value of work inclusive of VAT (Rand)	Date completed
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Signed \_\_\_\_\_

Date \_\_\_\_\_

Name \_\_\_\_\_

Position \_\_\_\_\_

Tenderer \_\_\_\_\_

### SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

We confirm that all subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Tenderer \_\_\_\_\_

## CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise  
Mr/Ms . . . . . , authorised signatory of the company . .  
. . . . . , acting in the  
capacity of lead partner, to sign all documents in connection with the tender offer and any  
contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature. . . . . Name . . . . . Designation
		Signature. . . . . Name . . . . . Designation
		Signature. . . . . Name . . . . . Designation
		Signature. . . . . Name . . . . . Designation

### SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant Plant and Equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my/our tender is accepted.

(a) Details of major Plant and Equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major Plant and Equipment that will be hired, or acquired for this contract if my/our tender is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Tenderer \_\_\_\_\_



### RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	<b>Date</b>	<b>Title or Details</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Name \_\_\_\_\_ Position \_\_\_\_\_  
Tenderer \_\_\_\_\_

### SUPPLIER DECLARATION FORM

Respondents are to furnish the following documentation and complete the Supplier Declaration Form below:

1. **Original or certified** cancelled cheque **OR** letter from the Respondent's bank verifying banking details [**with bank stamp**]
2. **Certified copy** of Identity Document(s) of Shareholders/Directors/Members [*where applicable*]
3. **Certified copy** of Certificate of Incorporation, CM29 / CM9 [*name change*]
4. **Certified copy** of Share Certificates [CK1/CK2 if CC]
5. Original or certified letterhead confirm physical and postal addresses
6. **Original or certified** valid SARS Tax Clearance Certificate [RSA entities only]
7. **Certified copy** of VAT Registration Certificate [RSA entities only]
8. A signed letter from your entity's auditor or accountant confirming most recent annual turnover figures or certified BBBEE certificate
9. **Certified copy** of valid Company Registration Certificate [*if applicable*]

Note: No contract shall be awarded to any South African Respondent whose tax matters have not been declared by SARS to be in order.

Note: No agreement shall be awarded to any Respondent whose tax matters have not been declared by SARS to be in order.

Company Trading Name						
Company Name	Registered					
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.	

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Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional registration number:	
Name of employer (firm):	
Current Position:	Years with the firm:
Employment record: (list in chronological order starting with earliest work experience)	
Experience record pertinent to required service	
Certification: I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.	
<i>[Signature of person named in schedule]</i>	Date



## TRANSNET SOC LIMITED / CONTRACTORS / SUB-CONTRACTORS

### CONTRACTUAL SAFETY CLAUSES WHICH WILL FORM PART OF ANY RESULTING CONTRACT

The parties agree on the following arrangements according to section 37 (2) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) to ensure compliance by the mandatory with provisions of the Act.

- 1) That the Contractor is an "employer" in his own right as defined in section 1 of Act 85 of 1993 and that he must fulfil all his obligations as an employer in terms of the Act.
- 2) The Contractor shall comply with the requirements of Act 85 of 1993 in its entirety.
- 3) Where special permits are required, such as electrical switching, hot work permits, etc. the Contractor shall obtain them from a person designated by Transnet SOC Limited for this purpose, and all requirements of the Contractor must rigidly comply with the permit.
- 4) The Contractor shall conduct a risk assessment of the work to be performed by a competent person prior to the commencement of work, to identify risks and hazards that persons may be exposed to, analyse and evaluate identified hazards.
- 5) The Contractor shall have a documented Health and Safety Plan based on the risks and hazards identified before commencement of work.
- 6) The Health and Safety Plan shall include the following:
  - 6.1 The safety management structure to be instituted with all appointments in terms of the Act and Regulations
  - 6.2 The safe working methods and procedures to be implemented to ensure work are performed in compliance to the Act.
  - 6.3 The safety equipment, devices and clothing to be made available by the Contractor to his employees.
  - 6.4 The site access control measures pertaining to health and safety to be implemented.
  - 6.5 Control measures for ensuring that the Health and Safety Plan is maintained and monitored for the duration of the contract.
- 7) The Contractor shall ensure that all work is performed under the close supervision of a person trained to understand the hazards associated with the work performed and who has authority to ensure that the necessary precautionary measures are implemented.
- 8) The Contractor must appoint a Health and Safety Co-ordinator to liaise with Transnet SOC Limited on matters pertaining to occupational health and safety.
- 9) The appointed Safety Co-ordinator must liaise at least once a week with the\* Health and Safety Section / Risk Manager /Occupational Risk Manager of Transnet SOC Limited.
- 10) The Contractor shall furnish the\* Health and Safety Section/ Risk Manager/ Occupational Risk Manager of Transnet SOC Limited immediately with full particulars of any sub-Contractor which he may involve in the contract in order that the sub-Contractor himself can be made aware of all the clauses in this contract pertaining to health and safety.



- 11) The Contractor shall stop any sub-contractor from executing work which is not in accordance with the Health and Safety Plan or which poses a threat to health and safety of persons.
- 12) The Contractor shall ensure that all his employees and visitors undergoes health and safety induction pertaining to the hazards prevalent, proof of such training must be kept on file.
- 13) In the event where the risk assessment reveals the risk relating to working from an elevated position the Contractor shall cause the designation of a competent person, responsible for the preparation of a Fall Protection Plan.
- 14) **The Fall Protection Plan shall include:**
  - 14.1 A risk assessment of all work carried out from an elevated position
  - 14.2 Procedures and methods to address all the identified risks per location
  - 14.3 Evaluation of employee's physical and psychological fitness necessary to work at elevated position.
  - 14.4 The training of employees working from an elevated position.
  - 14.5 Procedure addressing the inspection, testing and maintenance of all fall protection equipment.
- 15) The Contractor shall advise the \* Health and Safety Section / Risk Manager/ Occupational Risk Manager of Transnet SOC Limited of any hazardous situations which may arise from work being performed either by the Contractor or his sub-Contractor.
- 16) Copies of all appointments required by the act must be given to \* Health and Safety Section / Risk Manager / Occupational Risk Manager of Transnet SOC Limited.
- 17) The Contractor shall ensure that a Health and Safety File is available which shall include all documentation as required by the Act, copy of his and his Sub-Contractors Risk Assessment and Health and Safety Plan.
- 18) All incidents referred to in Section 24 of the Act involving the Contractor and his Sub-Contractor on Transnet Ltd premises, shall be reported as prescribed. Transnet Ltd hereby obtains an interest in the issue of any investigation, formal inquiry conducted in terms of Section 31 and 32 of the Act into any incident involving the Contractor, his Sub-Contractor, any person or machinery under his control on Transnet Ltd premises.
- 19) ***No alcohol or any other intoxicating substance shall be allowed on Transnet Ltd premises. The Contractor shall not allow anyone under or suspected to be under the influence of alcohol or any other intoxicating substance on Transnet Ltd premises.***
- 20) Contractor to ensure its employees undergo medical surveillance as required by legislation
- 21) Contractor will be required to provide monthly safety performance reports and statistics
- 22) ***A letter of good standing in terms of Section 80 (Employer to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Disease Act 1993 (Act 130 of 1993) must also be furnished.***

- 23) All clauses in the contract pertaining health and safety form an integral part of the contract and if not complied with may be construed as breach of contract.

\*As applicable

### Tenderer OH & S Management System Questionnaire

This questionnaire forms part of TFR tender evaluation process and is to be completed by all Tenderer's and submitted with their tender offer. The objective of the questionnaire is to provide an overview of the status of the Tenderer's OH&S management system. Tenderers will be required to verify their responses noted in their questionnaire by providing evidence of their ability and capacity in relevant matters. **TFR will verify accuracy of this information during the physical visit as part of the tender evaluation.**

The information provided in this questionnaire is an accurate summary of the company's occupational health and safety management system.		
Company Name:		
Signed:	Name:	
Position:	Date:	
Tender Description:		
Tender Number:		
Tenderer OH&S Management System Questionnaire	Yes	No
<b>1. OH&amp;S Policy and Management</b>		
- Is there a written company health and safety policy?		
- If yes provide a copy of the policy		
- Does the company have an OH&S Management system e.g NOSA, OHSAS, IRCA System etc		
- If yes provide details		
- Is there a company OH&S Management System, procedures manual or plan?		
- If yes provide a copy of the content page(s)		
- Are health and safety responsibilities clearly identified for all levels of Management and employees?		
- If yes provide details		
<b>2. Safe Work Practices and Procedures</b>		
- Are safe operating procedures or specific safety instructions relevant to its operations available?		
- If yes provide a summary listing of procedures or instructions		
- Is there a register of injury document?		
If yes provide a copy		
- Are Risk Assessments conducted and appropriate techniques used?		

- If yes provide details		
<b>3. OH&amp;S Training</b>		
<b>Describe briefly how health and safety training is conducted in your company:</b>		
- Is a record maintained of all training and induction programs undertaken for employees in your company? - If yes provide examples of safety training records		
<b>4. Health and Safety Workplace Inspection</b>		
- Are regular health and safety inspections at worksites undertaken? - If yes provide details		
- Is there a procedure by which employees can report hazards at workplaces? - If yes provide details		
<b>5. Health and Safety Consultation</b>		
- Is there a workplace health and safety committee?		
- Are employees involved in decision making over OH&S matters? - If yes provide details		
- Are there employee elected health and safety representatives? - Comments		
<b>6. OH&amp;S Performance Monitoring</b>		
- Is there a system for recording and analysing health and safety performance statistics including injuries and incidents? - If yes provide details		
- Are employees regularly provided with information on company health and safety performance? - If yes provide details		
<b>Is company registered with workmen's compensation and up to date?</b> - If yes provide proof of letter of good standing		
- Has the company ever been convicted of an occupational health and safety offence? - If yes provide details		

## Safety Performance Report

### Monthly DIFR for previous months

Previous Year	No of Disabling Injuries	Total Number of employees	DIFR per month
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

DIFR = Number of Disabling injuries x 200000 divided by number of man hours worked for the period

Signed  
(Tenderer)

### PROPOSED AMENDMENTS AND QUALIFICATIONS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed

Date

Name

Position

Tenderer

**TRANSNET SOC LIMITED**  
(REGISTRATION No. 1990/000900/30)  
TRADING AS  
**TRANSNET FREIGHT RAIL**

**LABOUR PAYMENT SCHEDULE**

**TENDERERS ARE REQUIRED TO COMPLETE THE FOLLOWING SCHEDULE:**

**DAY LABOUR (IF REQUIRED)**

Skilled Hour \_\_\_\_\_  
Unskilled Hour \_\_\_\_\_  
Labourer Hour \_\_\_\_\_  
Driver/Operator Hour \_\_\_\_\_  
Percentage Profit on Material % \_\_\_\_\_

**TRANSPORT AND MACHINERY**

1. Light vehicle up to 1 ton
2. 5 Ton vehicle
3. 10 Ton vehicle with crane
4. Crane
5. Scaffolding
6. Generator
7. Other equipment:

**RUNNING**

**STANDING**

8. Full details of any other charges:

**TENDERER:** \_\_\_\_\_

**DATE:** \_\_\_\_\_



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**Part C1:**  
**Agreement & Contract Data**

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## Short Contract

A contract between

and

for

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Conditions of contract	CC1

## Contract Data

The *Employer* is

Name Transnet SOC Limited Trading as Transnet Freight Rail  
 Address Room 222, Cnr Paul Kruger and Minaar Street, Pretoria.  
 Telephone (012) 315-2059 Fax No. (012) 315-2125  
 E-mail Yvonne.Scannell@Transnet.net

The *works* are: ROUTINE TESTING ON 25KV AC TRACTION AND 11KV SIGNAL SUPPLY AND DISTRIBUTION SUBSTATIONS UNDER THE CONTROL OF THE DEPOT ENGINEER, POLOKWANE.

The *site* is 25KV AC TRACTION SUBSTATIONS BETWEEN POLOKWANE AND PETRONELLA AND 11KV SIGNAL SUPPLY AND DISTRIBUTION SUBSTATIONS LOCATED AT TZANEEN, POLOKWANE, PIENAARSRIEVER AND ROOIWAL.

The *starting date* is TBA  
 The *completion date* is TBA  
 The *period for reply* is Two weeks

The *defects date* is.....52 weeks after completion of the whole of the works

The *defect correction period* is.....one week after notification.....

The *delay damages* are.....Nil per day.....

The *assessment day* is the.....13<sup>th</sup> of each calendar month.....

The *retention* is.....not applicable.....

Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?  
 No.....

The *Adjudicator* is

Name To be advised if disputes arise .....  
 Address .....  
 Telephone ..... Fax No. ....  
 E-mail .....

## Contract Data

The interest rate on late payment is two (2) % per annum above the prime lending rate of the Standard Bank of South Africa Ltd. As determined from time to time.

The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer's* property in excess of **R25, 000.00** for any one event.

The *Employer* provides this Insurance: **Principle Controlled Contract Works (PCI)**

The minimum amount of cover for the third insurance stated in the

Insurance Table is: **>R25, 000.00 (Limited to R10, 000.00 for any one event)**

The minimum amount of cover for the fourth insurance stated in the

Insurance Table is: **Not Applicable**

The *adjudicator nominating body* is: **The Chairman of the Association of Arbitrators (Southern Africa)**

The *tribunal* is: **Arbitration**

If the *tribunal* is arbitration, the arbitration procedure is: **The rules for the Conduct of Arbitrators of the Association of Arbitrators (Southern Africa)**

The *conditions of contract* are the NEC3 Engineering and Construction Short Contract (June 2005) and the following additional conditions

### **As mentioned in paragraph 1.0 (Contractual obligations)**

#### **1.0 CONTRACTUAL OBLIGATIONS (A)**

- 1.1 This project specification covers Transnet Freight Rail's requirements for routine, and emergency testing 25kV traction substations between Polokwane and Petronella and 11kV.signal supply and distribution substations located at Tzaneen, Polokwane, Pienaarsrivier and Rooiwal.
- 1.2 The Contractor shall not make use of any Sub-Contractor to perform the works or parts thereof without prior permission from the Employer's Deputy.
- 1.3 The Contractor shall comply with all applicable legislation and Transnet safety requirements adopted from time to time and instructed by the Employer's Deputy / Supervisor. Such compliance shall be entirely at his own cost, and shall be deemed to have been allowed for in the rates and prices in the contract.
- 1.4 The Contractor shall, in particular, comply with the following Acts and Transnet Specifications:-

## Engineering and Construction

- 1.4.1 The Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993. The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act.
- 1.4.2 The Occupational Health and Safety Act (Act 85 of 1993).
- 1.4.3 The explosive Act No. 26 of 1956 (as amended). The Contractor shall, when applicable, furnish the Employer's Deputy / Supervisor with copies of the permits authorising him or his employees, to establish an explosives magazine on or near the site and to undertake blasting operations in compliance with the Act.
- 1.4.4 The Contractor shall comply with the current Transnet Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Employer's Deputy / Supervisor.
- 1.4.5 The Contractor shall comply with the current Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment – E7/1, if applicable, and shall take particular care of the safety of his employees on or in close proximity to a railway line during track occupations as well as under normal operational conditions.
- 1.5 The Contractor's Health and Safety Programme shall be subject to agreement by the Employer's Deputy / Supervisor, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- 1.6 In addition to compliance with clause 1.4 hereof, the Contractor shall report all incidents in writing to the Employer's Deputy / Supervisor. Any incident resulting in the death of or injury to any person on the works shall be reported immediately of its occurrence and any other incident shall be reported within 24 hours of its occurrence.
- 1.7 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- 1.8 No penalty charge is applicable.
- 1.9 The Contractor shall supply a **site diary** (with triplicate pages). This book shall be used to record any unusual events during the period of the work. Any delays to the work shall also be recorded such as delays caused by poor weather conditions, delays caused by permits being cancelled etc. The appointed Employer's Deputy or Supervisor must countersign such delays. Other delays such as non-availability of equipment from 3<sup>rd</sup> party suppliers must be communicated to the Employer's Deputy or Supervisor in writing.
- 1.10 The Contractor shall supply a **site instruction book** (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site – for example the quality of work or the placement of equipment. This book shall be filled in by the Employer's Deputy or Supervisor and must be countersigned by the Contractor.
- 1.11 Both books mentioned in 1.9 and 1.10 shall be the property of Transnet Freight Rail and shall be handed over to the Employer's Deputy or Supervisor on the day of energising or handing over.
- 1.12 All processes or the manufacture and assembly of the product components must be subjected to a quality assurance system.

## Engineering and Construction

- 1.13 The Contractor will assume full responsibility for assuring that the equipment utilised meet the requirements of Transnet Freight Rail for function, performance, and reliability, including purchased products from 3<sup>rd</sup> part suppliers/Manufacturers.
- 1.14 The Contractor shall prove to Transnet Freight Rail that his equipment or those supplied from 3<sup>rd</sup> party suppliers/manufacturers confirms to Transnet freight rail specifications.
- 1.15 The Contractor will remain liable for contractual delivery dates irrespective of deficiencies discovered during testing.
- 1.16 Transnet Freight Rail reserves the right to award the contract based on delivery period due to the urgency of the substation.
- 1.17 Transnet Freight Rail reserves the right to award the contract in portions pertaining different work execution specialisation.

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## Contract Data

### The Contractor's Offer

The Contractor is

Name .....

Address .....

Telephone ..... Fax .....

E-mail .....

The percentage for overheads and profit added to the Defined Cost for people is.....%.

The percentage for overheads and profit added to other Defined Cost is.....%.

The Contractor offers to provide the Works in accordance with the *conditions of contract* for an amount to be determined in accordance with the *conditions of contract*.

The offered total of the prices (VAT Inclusive) is (total amount in words).....

Amount in figures (VAT inclusive).....

Signed on behalf of the Contractor

Name .....

Position .....

Signature ..... Date .....

### The Employer's Acceptance

The Employer accepts the Contractor's Offer to Provide the Works

Signed on behalf of the Employer

Name .....

Position .....

Signature ..... Date .....

---

## **Part C2: Pricing Data**

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## Part C2:Pricing Data

### Part C2.1: Price Instructions

#### 2.0 PRICING INSTRUCTIONS

- 2.1. The agreement is based on the NEC Engineering and Construction Short Contract 3. The contract specific variables are as stated in the contract data. Only the headings and clause numbers for which allowance must be made in the Price list are recited.
- 2.2. Preliminary and General Requirements are based on part 1 of SANS 1921, 'Construction and Management Requirements for Works Contracts'. The additions, deletions and alterations to SANS 1921 as well as the contract specific variables are as stated in the contract data. Only the headings and clause numbers for which allowance must be made in the Price list are recited.
- 2.3. It will be assumed that prices included in the Price list are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
- 2.4. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 2.5. The Price list is not intended for the ordering of materials. Any ordering of materials, based only on the Price list, is at the Contractor's risk.
- 2.6. The following abbreviations are used in the Price list:
- |     |   |      |
|-----|---|------|
| Sum | = | sum  |
| Ea  | = | each |
- 2.7. The prices and rates in these Price list are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the scope of work and shall cover liabilities and obligations set forth or implied in the Contract data, as well as profit.
- 2.8. Where the scope of work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered for such items.
- 2.9. Where no quantity has been provided against an item in the Price list, the Contractor shall use their discretion and provide the quantity.
- 2.10. The short descriptions of the items of payment given in these Price list are only for purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- 2.11. For each item in the Price list, including Preliminaries, the Contractor shall provide in the appropriate column the portion of the tendered sum (inclusive of labour and material) which has been sourced locally (Republic of South Africa).
- 2.12. The total in the Price list shall be exclusive of VAT.
- 2.13. Transnet Freight Rail payment terms ~ 30 days from date of month end statement.
- 2.14. Any error in the invoiced amount shall be corrected and reflected in the following monthly statement by the Contractor.

## Engineering and Construction

2.15 All invoices must reflect the following information:

- Contract number
- Job number / reference number
- Description of the work to be performed plus detailed address where the work was performed.
- Travelling time

2.16 All invoices to be verified by Transnet Freight Rail Supervisor.

2.17 The amount tendered shall be inclusive of all transport, cartage of plant, etc. costs for completion of the Works as specified in the contract documents. Refer also to pricing.

### 2.18 INVOICE INFORMATION

All invoices must reflect the following information: -

- Purchase order number ~ \_\_\_\_\_
- Description of work performed plus detailed address where work was performed
- All invoices to be verified by TFR Supervisor and stamped
- Company's VAT number and Transnet Vat number 4720103177.
- Transnet Freight Rail full postal address

2.19 For technical and delivery matters, contact the Employer's deputy, Transnet Freight Rail, appointed as the Transnet technical representative, N. G. Sikhakhane, cell 083 288 9502.

## Part C2: Pricing Data Part C2.2: Price list

Item	Description	Unit	Qty	Rate	Price
Part 1	Double unit 25kV AC substations				
1	Petronella two transformers, Four VCB's	sum	1	R	R
2	Nirvanna two transformers, Four VCB's	sum	1	R	R
A	Subtotal for Double Unit 25kV Substation =				R
B	VAT (14%) of A =				R
C	Gross Total (A+B) =				R

Item	Description	Unit	Qty	Rate	Price
Part 2	Single Unit 25kV AC Substations				
1	Pienaarsrivier One transformer, 4 VCB's	sum	1	R	R
2	Warmbad One transformer, 3 VCB's	sum	1	R	R
3	Nylstroom One transformer, 3 VCB's	sum	1	R	R
4	Boekenhout One transformer, 3 VCB's	sum	1	R	R
5	Haakdoring One transformer, 3 VCB's	sum	1	R	R
6	Potgietersrus One transformer, 3 VCB's	sum	1	R	R
7	Geyser One transformer, 3 VCB's	sum	1	R	R
A	Subtotal for Single Unit 25 kV Substation =				R
B	VAT (14% ) of A =				R
C	Gross Total (A+B) =				R

## Engineering and Construction

Item	Description	Unit	Qt	Rate	Price
Part 3	11KV Distribution Substations				
1	Rooiwal 5 panels	sum	1	R	R
2	Pienaarsrivier 1 panel	sum	1	R	R
3	Polokwane goods 4 panels, 1 transformer	sum	1	R	R
4	Polokwane station 4 panels, 1 transformer	sum	1	R	R
5	Polokwane loco 1 panel, 1 transformer	Sum	1	R	R
6	Polokwane yard 1 panel, 1 transformer	Sum	1	R	R
7	Tzaneen 2 panels	Sum	1	R	R
8	Accommodation cost per night	ea	10	R	R
A	Subtotal for Single Unit 3kV DC Substation =				R
B	VAT (14% ) of A =				R
C	Gross Total (A+B) =				R

Item	Description		Total Price (Excl. VAT)
Part 4	Totals carried forward		
Part 1	Double unit 25kV AC substations	Total (Excl. VAT)	R
Part 2	Single unit 25kV AC substations	Total (Excl. VAT)	R
Part 3	11kV Distribution substations	Total (Excl. VAT)	R
A	Total (Excl. VAT)=		R
B	VAT (14% ) of A =		R
C	Gross Total (A+B) =		R



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**Part C3:  
Works information**

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**Part C3: Contract Data****Part C3.1: Works Information****3 DESCRIPTION OF WORK**

- 3.1 Commissioning tests: The Contractor shall test all electrical protection equipment at all existing or newly built Signal and Distribution Supply and Traction Sub stations in which relevant equipment has been replaced on an emergency repair or newly installed basis as follows:
- 3.1.1 Current transformers: Magnetisation curve to be tested at all points to indicate the knee point voltage as depicted on previous routine or commissioning test reports. If not within tolerances a ratio must be performed to prove the integrity of the current transformer. Polarity tests where applicable.
- 3.1.2 Protection relays: Secondary current injection test at 200% and 600/800% for distribution substations and 200% and 400% for AC traction substations as indicated on relevant test sheets noting tripping times and indications. Distance protection relays on AC traction line feeders to be tested to indicate tripping percentage for the different zones at set values.
- 3.1.3 AC Frame Leakage Systems: Measurement of substation earth to mass of earth and insulation values to earth and between separate systems/zones by suitable earth and insulation meggers. Tripping current values by Primary injection for relevant zone/systems to be noted to give required tripping, indications and lockout. Systems shall be tested for possible parallel paths as well.
- 3.1.4 Transformer Protection: Bucholz relays to be tested by air injection/test trip noting trip level to give lockout and indication. Oil and winding temperature gauges to be tested by dial injection to give trip, indication and lockout as applicable. Where required a calibration test is to be done by heat simulation. Pressure relief devices tested by test trip noting trip, lockout and indication.
- 3.1.5 Indicating meters: By secondary injection of Current and Voltage applicable at full scale deflection. By exception the 4kV DC indicating voltmeter must be tested by primary HV DC injection.

## Engineering and Construction

- 3.1.6 Insulation levels: Pressure test on complete installation in the case of distribution panels and rectifiers in the case of traction substation.
- 3.1.7 Main and auxiliary supplies failures: Phase/AC fail relays to be tested and Battery under voltage relay to be calibrated to trip and lockout all circuit breakers.
- 3.1.8 Primary circuit breakers and 25KV AC VCB's: to be tested strictly according to relevant routine sheet regarding closing/opening times and contact resistance.
- 3.1.9 The Contractor shall supply latest copy of calibration certificate of testing equipment.
- 3.1.10 The Contractor shall do testing for minor repair work and re-testing where faulty equipment is identified during the above testing period. (Transnet will supply all material required for these repairs.)
- 3.1.11 Routine tests: The Contractor shall do routine tests at all signal and Distribution substations and traction substations from Tzaneen to Rooiwal within three months from date of which the contract is signed.
- 3.1.12 The Contractor shall complete the test sheet as applicable and defects report as applicable for routine testing and commissioning.
- 3.1.13 The technician/electrician who will assist during the contract as based in the relevant maintenance depot from where he will depart and accompany the Contractor every morning.
- 3.1.14 A technician/electrician from Transnet will provide access to the substations and will and issue applicable work/test permits to isolate and earth all equipment before handing it over for testing purposes. The Contractor shall confirm the isolation and earthing applied as well as the work limits. No work shall be done in any substation without the presence of a Transnet representative.
- 3.1.15 The Contractor shall supply the Employer's Deputy with test sheets and defects report per substation tested.
- 3.1.16 Transnet shall provide security where necessary for the duration of the contract.

## Part C3: Contract Data

### Part C3.2: Particular specification

#### 3.2 Specifications

##### 3.2.1 South African National Standards:

3.2.1.1 Occupational Health and Safety Act No. 85 of 1993 (Available at depot for referral)

##### 3.2.2 Transnet Freight Rail Specifications:

3.2.2.1 CEE-TBD-0007 Earthing arrangement for traction substations.

##### 3.2.3 Relevant Electrical Test Report Sheets:

- 3.2.3.1 BBF 9296 VER 2 11kV Signal/Distribution Supply substation: ring.Transf./Tline.
- 3.2.3.2 BBF 9297 VER 2 11kV Signal/Distribution Supply substation: Bus coupler/Zone.
- 3.2.3.3 BBF8995 VER 2 25kV AC Traction substation: Main transformer protection
- 3.2.3.4 BBF8996 VER 2 25kV AC Traction substation: Incomer 7 line feed VCB's
- 3.2.3.5 BBF8998 VER 2 25kV AC Traction substation: CB Timing & contact resistance.
- 3.2.3.6 BBB0347 VER 2 Substation defect report.

Constraints on how the *Contractor* Provides the Works:

3.2.4 The constraints shall be as specified in the specifications of the particular equipment.

3.2.5 Requirements for the programme:

3.2.5.1 Programme of work : To be submitted by successful Contractor

3.2.5.2 Format : Bar chart

3.2.5.3 Information : How work is going to be executed and commissioned.

3.2.5.4 Submission : Not Applicable

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

3.2.7 Transnet Freight Rail shall have an electrician/technical assistant available for isolation and the erection of barriers to live electrical equipment and issuing of work permits.

**Electrical Test Laboratory**  
**SUB DEFECT REPORT**

**TRANSNET**  
 freight rail

 GRADE: SENIOR ENGINEERING TECHNICIAN  
 ADDRESS:

TO: MAINTENANCE MANAGER

DEPOT:

DATE:

OUR REF.:

**PROTECTION DEFECT REPORT**

The following DEFECTS were found during commissioning / routine testing:

At :

E.L.&amp;P. /TRACT. Sub-, Tie station:

TESTED BY : \_\_\_\_\_

SIGNATURE : \_\_\_\_\_

*Please attend to these defects and complete bottom portion of this form within two months  
 after receiving report and send back to **TEST LAB**.*

TO: SENIOR ENGINEERING TECHNICIAN

FROM : MAINTENANCE MANAGER

DEPOT:

YOUR REF:

**CORRECTION ACTION REPORT**

The following REPAIRS were done for :

At :

E.L.&amp;P. / TRACT. Sub-, Tie-station :

These defects were repaired by :

Technician : \_\_\_\_\_

Technical Supt. : \_\_\_\_\_


And reported to TECHNICAL MANAGER/SUPT.

Date : \_\_\_\_\_


Checked by


Chief Eng. Technician : \_\_\_\_\_


*If any assistance is needed to solve or repair a defect and re-testing is necessary, please contact Senior Engineering Technician.  
 Before the Final correction report is sent through.  
 THANK YOU FOR YOUR CO-OPERATION.*

Rail Network Maintenance					BBF8995 Version 1	
<b>25 kV AC Traction Substations Test Sheet</b> <b>Main Xformer Protection: Main Overloads and REF</b> <b>Buchholtz, Overtemperature &amp; PRD. Battery Undervoltage</b> <b>Relay. Earth Resistance measurement</b>						
<b>Substation:</b>			<b>Routine :</b>		<b>Commissioning:</b>	
Main Xformer Full Load Current (Amps)			HV CT Primary Current Rating	HV CT Sec Current Rating	LV CT Primary Current Rating	LV CT Sec Current Rating
HV	LV					
			Magnetization curves			
		Volts	HV CT Phase 1 mAmps	HV CT Phase 2 mAmps	LV CT Phase 1 mAmps	LV CT Phase 1 mAmps
Instantaneous Overload Setting						
			Primary (HV)		Secondary (LV)	
IDMT Overcurrent setting						
IDMT Time Multiplier setting						
Multiple of Plug setting			2	4	2	4
Operating time specified (Sec)						
Injected current at setting multiples						
Operating tripping times						
All operations trip Primary Circuit Breaker giving indication					Yes	No
Restricted Earth Fault protection						
			Primary (HV)		Secondary (LV)	
Current Setting						
Voltage setting						
Tripping Voltage						
Operating time			Instantaneous		Instantaneous	
All operations trip Primary Circuit Breaker giving indication and lockout					Yes	No
Main Xformer Buchholtz: Relay trips PCB giving Lockout & Indication with _____ cc of air in relay.						
Main Xformer Oil Over temperature: Relay trips PCB giving Lockout & Indication at _____ °C dail setting.						
Main Xformer Winding Over temperature: Relay trips PCB giving Lockout & Indication at _____ °C dail setting.						
Main Xformer Pressure relief device: Relay trips PCB giving Lockout & Indication. <u>Yes/No</u>						
Battery undervoltage protection:						
Relay tested to pickup at _____ and dropout at _____ Volts tripping PCB with indication and Lockout						
Earth resistance test:						
Resistance between spikes= _____ ohms      Resistance from spikes to main earth= _____ ohms						
Tested by: Name:			Signature		Date:	



Rail Network Maintenance				BBF8996 Version 1			
<b>25 kV AC Traction Substations Test Sheet</b> <b>Current Transformer Ratio and Mag. curves.</b> <b>Incomer VCB Micom Overload &amp; Feedback Protection</b> <b>Battery Undervoltage Relays.</b>							
<b>Substation:</b>		<b>Routine :</b>		<b>Commissioning:</b>			
Panel No							
CT Ratio Marked							
CT Ratio Measured							
Magnetisation curves		Volts	mAmps	Volts	mAmps	Volts	mAmps
<div>Overload Protection</div> <div>Relay Make &amp; Type:</div> <div> <div>MICOM</div> <div>P122</div> <div>Protecta DRFP-EP</div> <div>Protecta DRFP-EP</div> </div> <div>           ⚡ Relay OP PARAMETERS ⚡            CONFIGURATION ⚡ Display ⚡ CT Ratio ⚡            Line CT primary ⚡ Line CT sec ⚡ Setting correct Y / N            PROTECTION GROUP G1 ⚡            (50/51) Phase OC Element: ⚡            Ie&gt;Yes ⚡ I&gt;=1 In ⚡ Delay type=DMT ⚡            tI=0.20s ⚡ tReset=500ms ⚡ I&gt;=&gt; No ⚡ I&gt;=&gt;=&gt; No ⚡         </div> <div>Relay secondary injection trip current (Amps)</div> <div> <div></div> <div>200%</div> <div>400%</div> </div> <div>Operating trip times (sec) at Multiples of I&gt;</div> <div> <div></div> <div></div> </div> <div>Backfeed Protection</div> <div>Relay Make &amp; Type:</div> <div> <div>MICOM</div> <div>P125</div> </div> <div>           ⚡ Relay OP PARAMETERS ⚡            CONFIGURATION ⚡ Display ⚡ CT Ratio ⚡            Line CT primary ⚡ Line CT sec ⚡ Setting correct Y / N            PROTECTION GROUP G1 ⚡            (67N) E/GND Element: ⚡            Ie&gt;?=Dir ⚡ Ie=0.100In ⚡ Ie=5v ⚡ Torque=135° ⚡ Trip+/-=80° ⚡            Delay type=DMT ⚡ tI=0.10s ⚡ Reset=0.04s ⚡ Ie&gt;=&gt;&amp; Ie&gt;=&gt;=&gt; No ⚡         </div> <div>Applied Test voltage (AC)</div> <div>110v</div> <div>Relay does not trip on forward test current</div> <div> <div>Yes</div> <div>No</div> </div> <div>Relay trips at reverse test current (Amps)(Pri)</div> <div></div> <div>Operating tripping time (sec) at Itrip+20%</div> <div></div> <div>All operations trip VCB's giving indication</div> <div> <div>Yes</div> <div>No</div> <div>Yes</div> <div>No</div> <div>Yes</div> <div>No</div> </div> <div>Battery undervoltage protection:</div> <div></div> <div>Relays tested to pickup/dropout at Tripping</div> <div> <div>/</div> <div>Volts</div> <div>/</div> <div>Volts</div> <div>/</div> <div>Volts</div> </div> <div>VCB with indication and Lockout</div> <div> <div>Yes</div> <div>No</div> <div>Yes</div> <div>No</div> <div>Yes</div> <div>No</div> </div> <div>Tested by: Name:</div> <div>Signature</div> <div>Date:</div>							

Rail Network Maintenance				BBF8998 Version 1			
<b>25 kV AC Traction Substations Test Sheet</b> <b>Current Transformer Ratio and Mag. curves.</b> <b>Incomer VCB Overload Protection</b> <b>Line Feeder VCB's Instaneous , Thermal Overload &amp; YTG 14 Distance Protection. Volt &amp; Ammeters</b>							
<b>Substation:</b>		<b>Routine :</b>		<b>Commissioning:</b>			
Panel No. / Designation							
CT Ratio Marked		1200/1		1200/1		1200/1	
CT Ratio Measured							
Magnetisation curves		Volts	mAmps	Volts	mAmps	Volts	mAmps
<b>Instantaneous Overload Protection</b> Relay Make & Type: IDMT CAG CAG Overcurrent setting 1 1 1 IDMT Time setting % Test current 200% 400% 200% 200% Injected current at test current % (Amps) 2 4 2 2 Operating tripping times (sec)							
<b>Thermal Overload Protection</b> Relay Make & Type: P&B Golds P&B Golds Thermal current setting 1 1 Time setting 120 120 % Test current Operating tripping times (sec) All operations trip VCB's giving indication Yes No Yes No Yes No							
<b>Distance Protection</b> Relay Make & Type: YTG 14 YTG 14 Relay Settings K1=1 K2=3.5 K3=3.5 K4=1 K5=32 Q1=65 Q2=65 T(Z2)=0.1T(Z3)=0.5 Z2TDelayT=Out K8=1 K18=1 K1=1 K2=3.5 K3=3.5 K4=1 K5=32 Q1=65 Q2=65 T(Z2)=0.1 T(Z3)=0.5 Z2T DelayT=Out K8=1 K18=2 Operating % Calculated/Measured Z1: 76-69 Z2: 92-102 Z3: 92-103 Z3 Rev: 3							
<b>Indicating instruments</b> Voltmeter @ Full Scale deflection Ammeters@ Full Scale deflection Max Demand Indicators Tested by: Name: Signature Date: Approved by: Name: Signature Date:							

Network Maintenance					BBF9296 Version 1																																			
Protection. Earth		Substation																																						
Panel No:		Designation																																						
Frame Leakage		Make/Type of relay: _____ / _____ Tested by Pri/Sec/TW																																						
Zones	Zone 1	Zone 2	Zone 3	Parallel paths test	Zone 1 to Zone 2																																			
I set =				at Iset amps	Zone 1 to Zone 3																																			
I trip (amps)					Zone 2 to Zone 3																																			
Intertripping tests Zone 1 tripping    Zone 1    Zone 2    Zone 3 Zone 2 tripping    Zone 1    Zone 2    Zone 3 Zone 3 tripping    Zone 1    Zone 2    Zone 3				Insulation Resistance	Zone 1 to Main Earth																																			
					Zone 2 to Main Earth																																			
					Zone 3 to Main Earth																																			
					Zone 1 to Zone 2																																			
					Zone 1 to Zone 3																																			
					Zone 2 to Zone 3																																			
<table border="1"> <tr><td>Red</td><td>White</td><td></td></tr> <tr><td>White</td><td>Blue</td><td></td></tr> <tr><td>Blue</td><td>Red</td><td></td></tr> </table>				Red	White		White	Blue		Blue	Red		HiPot test <table border="1"> <tr> <td></td> <td>Red</td> <td>Earth</td> <td></td> <td></td> <td>Red</td> <td>White</td> <td></td> </tr> <tr> <td></td> <td>White</td> <td>Earth</td> <td></td> <td></td> <td>White</td> <td>Blue</td> <td></td> </tr> <tr> <td></td> <td>Blue</td> <td>Earth</td> <td></td> <td></td> <td>Blue</td> <td>Red</td> <td></td> </tr> </table>					Red	Earth			Red	White			White	Earth			White	Blue			Blue	Earth			Blue	Red	
Red	White																																							
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Blue	Red																																							
	Red	Earth			Red	White																																		
	White	Earth			White	Blue																																		
	Blue	Earth			Blue	Red																																		
d to pickup at _____ and dropout at _____ Volts tripping all VCB's with indication and Lockout																																								
_____ ohms		Resistance between spikes and Substation Earth _____ ohms																																						
Witnessed by: Name: _____				Signature: _____		Date: _____																																		

<div><b>Rail Network Maintenance</b></div>													<div><b>BBF9297 Version 1</b></div>			
<b>Signal and Distribution Substations Test Sheet</b>													<div></div>			
<b>Ring, Transmission Line and Transformer Feeder VCB's Current Transformers, Overload, Earth fault, Cable &amp; Transformer Protection</b>										<b>Substation</b>						
<b>Routine :</b>		<b>Commissioning:</b>			<b>Panel No:</b>		<b>Designation</b>									
<b>Current Transformers</b>		<b>Protection Class</b>			<b>Metering Class</b>			<b>SOLKOR/TRANSLAY Class</b>			<b>Output Relay Configuration</b>					
		<b>Red</b>	<b>White</b>	<b>Blue</b>		<b>Red</b>	<b>White</b>	<b>Blue</b>		<b>Red</b>	<b>White</b>	<b>Blue</b>	<b>B01</b>			
<b>CT Ratio</b>		<b>Marked Measured</b>			<b>Marked Measured</b>			<b>Marked Measured</b>					<b>B02</b>			
<b>Mag curves</b>		<b>Volts</b>	<b>Red A</b>	<b>White A</b>	<b>Blue A</b>	<b>Volts</b>	<b>Red A</b>	<b>White A</b>	<b>Blue A</b>	<b>Volts</b>	<b>Red A</b>	<b>White A</b>	<b>Blue A</b>	<b>B03</b>		
													<b>B04</b>			
													<b>B05</b>			
<b>Polarities</b>																
<b>Protection Relays: Make/Type:</b> _____ / _____																
<b>Overcurrent Elements</b>		<b>Tested by Pri/Sec/TW</b>						<b>Tested by Pri/Sec/TW</b>						<b>LED Configuration</b>		
<b>IDMT (NI)</b>		<b>I set=</b>		<b>T set=</b>		<b>Instantaneous</b>		<b>I set =</b>		<b>T set =</b>						
		<b>Amps</b>	<b>R to W</b>	<b>R to B</b>	<b>B to W</b>	<b>Operating times In seconds</b>	<b>Multiple</b>	<b>Amps</b>	<b>R to W</b>	<b>R to B</b>	<b>B to W</b>					
<b>Operating time in seconds</b>		<b>1.25 x Iset</b>				<b>2.00 x Iset</b>		<b>2.00 x Iset</b>				<b>LED 1</b>				
		<b>2.00 x Iset</b>				<b>4.00 x Iset</b>		<b>4.00 x Iset</b>				<b>LED 2</b>				
		<b>3.00 x Iset</b>				<b>6.00 x Iset</b>		<b>6.00 x Iset</b>				<b>LED 3</b>				
												<b>LED 4</b>				
<b>Earth Fault Elements</b>		<b>Tested by Pri/Sec/TW</b>						<b>Tested by Pri/Sec/TW</b>								
<b>IDMT (NI)</b>		<b>I set=</b>		<b>T set=</b>		<b>Instantaneous</b>		<b>I set=</b>		<b>T set=</b>						
		<b>Amps</b>	<b>R to E</b>	<b>R to F</b>	<b>B to E</b>	<b>Operating times In seconds</b>	<b>Multiple</b>	<b>Amps</b>	<b>R to E</b>	<b>R to F</b>	<b>B to E</b>					
<b>Operating time in seconds</b>		<b>1.25 x Iset</b>				<b>2.00 x Iset</b>		<b>2.00 x Iset</b>				<b>LED 5</b>				
		<b>2.00 x Iset</b>				<b>4.00 x Iset</b>		<b>4.00 x Iset</b>				<b>LED 6</b>				
		<b>3.00 x Iset</b>				<b>6.00 x Iset</b>		<b>6.00 x Iset</b>				<b>LED 7</b>				
												<b>LED 8</b>				
												<b>LED 9</b>				
<b>Feeder Protection</b>		<b>Solkor:Overall Fault setting</b>						<b>Tested by Pri/Sec/TW</b>				<b>Translay:Overall Fault setting</b>		<b>Tested by Pri/Sec/TW</b>		
<b>Pilot Cable</b>						<b>Fault</b>		<b>kV/Sec Amp</b>	<b>A mA</b>	<b>B mA</b>	<b>M mA</b>	<b>Operation</b>	<b>Fault</b>	<b>Current</b>	<b>Relay Output</b>	<b>Pilot mAmps</b>
<b>Loop Resistance</b>		<b>T1+T2</b>	<b>Ohm</b>		<b>R-E</b>								<b>R-E</b>			
<b>Insulation Resistance</b>		<b>T1-E</b>	<b>MOhm</b>		<b>W-E</b>								<b>W-E</b>			
		<b>T2-E</b>	<b>MOhm</b>		<b>B-E</b>								<b>B-E</b>			
		<b>T1-T2</b>	<b>MOhm</b>		<b>R-W</b>								<b>R-W</b>			
					<b>W-B</b>								<b>W-B</b>			
					<b>B-R</b>								<b>B-R</b>			
<b>Transformer Protection</b>																







*freight rail*

**MINIMUM COMMUNAL HEALTH REQUIREMENTS IN AREAS OUTSIDE THE JURISDICTION OF A LOCAL AUTHORITY: TEMPORARY FACILITIES FOR CONTRACTOR'S PERSONNEL**

**1. CAMPS**

- 1.1 Prior to the erection of any camp, the Contractor shall submit to the Employer's Deputy, for his approval, details of his proposals as to the site, water supply, sanitation, and size and type of buildings. Where the site is on private land, the Contractor shall submit the written approval for the use of the site of the relevant statutory authority and of the owner and occupier of the land (as applicable).
- 1.2 Camps must not be erected on land infested with field rodents.
- 1.3 Adequate drainage shall be provided to carry off storm and waste water.
- 1.4 Buildings shall be built to a neat and orderly pattern.
- 1.5 All buildings shall have smooth, hard, impervious floors, graded to provide effective drainage and to permit washing.
- 1.6 Camps shall be maintained by the Contractor at his own expense in a clean and tidy condition. The Contractor shall take such steps as the Employer's Deputy and landowner/occupier may demand to prevent the creation of a nuisance.
- 1.7 When so instructed by the Employer's Deputy, the Contractor shall, at his own expense, erect suitable screens between the camp and any public road, thoroughfare or railway line.
- 1.8 After removal of a camp, the Contractor shall, at his own expense, restore the site to its original condition to the satisfaction of the Employer's Deputy and of the landowner and occupier where the site is on private land.

**2. HOUSING**

- 2.1 Every living room shall have cross ventilation, both constant and occasional. Where only one window is provided, it shall not be in the same wall as the door.
- 2.2 Dimensions of living rooms shall be sufficient to allow 3.5 square metres of floor area and 11 cubic metres of air space for each person over the age of 10 years. The floor area of any living room shall not be less than 7,8 square metres.



- 2.3 Flat-roofed quarters shall have a minimum roof height of 3 metres above floor level. For quarters with pitched roofs, the wall height shall be not less than 2,6 metres above the floor with a minimum height above floor of 3 metres at the top of the pitch.
- 2.4 Doors shall not be less than 2m x 0,75m and must be halved.
- 2.5 Windows of each living room shall have an area not less than one twelfth of the floor area and shall be capable of opening to at least half their full area.
- 2.6 In areas where malaria is prevalent, doors and windows must be fitted with gauze screens.
- 2.7 Cooking shelters shall comprise roofed structures, three sides of which shall be enclosed by a weatherproof material, approved by the Employer's Deputy to a height of at least 1m above ground level.
  - 2.7.1 Sleeping quarters shall not accommodate more than 8 persons per room.
  - 2.7.2 Pegboards shall be carried on metal or concrete supports and shall be separated by partitions not less than 0,4 metres high extending to within 150mm of the end of the bunk. Pegboards shall be removable for cleaning.

### 3. **WATER SUPPLY AND ABLUTION FACILITIES**

- 3.1 The Contractor shall ensure that an adequate and conveniently situated supply of potable water is provided.
- 3.2 Separate buildings for ablution facilities shall be provided. Where approval has been obtained for the housing of both males and females, separate facilities for each sex shall be provided. The proportion shall be 1 cubicle for 20 persons.
- 3.3 Waste water shall be hygienically disposed of.

### 4. **SANITATION**

- 4.1 Separate buildings for latrine facilities shall be provided. Where housing are provided for both males and females, separate facilities for each sex shall be provided. The proportions shall be at least one squatting seat for every 15 persons or less in the case of pit latrines, or one for every 10 persons or less in case of pail latrines.

Latrines shall be fly proof and sited at least 10 metres from any other building, and shall not face on any public road, thoroughfare, railway line or residential property. Pits shall not be less than 2,5 metres deep and sited not less than 120 metres from nearest underground water source.

- 4.2 Latrines shall be so constructed, situated and maintained, and night soil so disposed of as to prevent access by animals, breeding of flies, pollution of streams and domestic water supplies, and other nuisances. Where a night soil removal service is operated by a competent authority, use of such service shall be obligatory, and the use of pit latrines and atria pits will not be permitted.

- 4.3 At least one refuse bin of adequate size with close fitting lid shall be provided for each building. Refuse bins shall be emptied and cleaned out daily.
- 4.4 Labour shall be employed on camp sanitation duties on the following basis:-
  - 4.4.1 Where the number of persons living at the camp is 20 or less - one unit.
  - 4.4.2 For additional numbers over 20 living at the camp - one unit per 100 or part thereof.
- 4.5 Unless refuse is removed by a competent authority, it shall be disposed of in pits and covered over daily with a layer of earth or ash of sufficient thickness to prevent depredations by rodents and the breeding of flies.
- 4.6 Adequate measures shall be taken against all vermin and insects responsible for the spread of disease. Any instructions of a competent health authority shall be carried out promptly and implicitly.
- 4.7 Buildings and bedboards shall be treated whenever necessary with an approved insecticide.
- 4.8 The Contractor shall permit and facilitate inspection of the camp and structures on the site by the staff of Transnet or any other competent authority, and shall comply with any reasonable request by such staff or any other competent authority to eliminate any unsanitary condition.
- 4.9 Any outbreak of infectious disease shall immediately be reported telephonically and confirmed in writing to the Employer's Deputy.
- 4.10 The keeping of animals of any sort is not permitted.
- 4.11 The Contractor shall have on hand at the camp the necessary tools, disinfectants and cleaning materials to maintain and clean the sanitary facilities.

## 5. RATIONS

Rations, where supplied by the Contractor, shall be stored in a suitable and rodent proof building with sufficient shelving.

**TRANSNET SOC LIMITED**

(Registration no. 1990/000900/30)

**SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE  
WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT  
(ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

**1. General**

- 1.1 The Contractor and Transnet SOC Limited (hereinafter referred to as "Transnet") are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by Transnet, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 Transnet accepts, in terms of the Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and Project Manager or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the Works.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

**2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -
- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
  - (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;

- (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
  - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
  - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;
- 2.3 **"competent person"** in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 **"Contractor"** means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 **"fall protection plan"** means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 **"health and safety file"** means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 **"Health and Safety Plan "** means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 **"Risk Assessment"** means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 **"the Act"** means the Occupational Health and Safety Act No. 85 of 1993.

### 3. Procedural Compliance

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-

- (a) includes the demolition of a structure exceeding a height of 3 metres; or
- (b) includes the use of explosives to perform construction work; or
- (c) includes the dismantling of fixed plant at a height greater than 3m,

and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-

- (a) includes excavation work deeper than 1m; or

- (b) includes working at a height greater than 3 metres above ground or a landing.
- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Project Manager or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Project Manager. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Project Manager.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Project Manager an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Project Manager with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Transnet's safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Project Manager or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such permits.

#### **5. Health and Safety Programme**

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
- (i) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the Act;



- (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety;
  - (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.
- 5.2 The Contractor's Health and Safety Programme shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:
- (a) The identification of the risks and hazards that persons may be exposed to;
  - (b) the analysis and evaluation of the hazards identified;
  - (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
  - (d) a monitoring and review plan.
- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
  - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
  - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;
  - (d) the site access control measures pertaining to health and safety to be implemented;
  - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Project Manager with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and



- (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.4 The Health and Safety programme shall be subject to the Project Manager's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the Project Manager's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Project Manager or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.5 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.
- 5.6 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.7 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Project Manager, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.
- 5.8 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the Risk Assessment.
- 5.9 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.10 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the Risk Assessment before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.11 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;

6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.

6.3 The fall protection plan shall include:-

- (a) A Risk Assessment of all work carried out from an elevated position;
- (b) the procedures and methods to address all the identified risks per location;
- (c) the evaluation of the employees physical and psychological fitness necessary to work at elevated positions;
- (d) the training of employees working from elevated positions; and
- (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Project Manager shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Project Manager, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Project Manager.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Project Manager upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**ANNEXURE 1**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

**NOTIFICATION OF CONSTRUCTION WORK**

- 1(a) Name and postal address of principal contractor:  
\_\_\_\_\_
- (b) Name and tel. no of principal contractor's contact person:  
\_\_\_\_\_
2. Principal contractor's compensation registration number:  
\_\_\_\_\_
- 3.(a) Name and postal address of client:  
\_\_\_\_\_
- (b) Name and tel no of client's contact person or agent:  
\_\_\_\_\_
- 4.(a) Name and postal address of designer(s) for the project:  
\_\_\_\_\_
- (b) Name and tel. no of designer(s) contact person:  
\_\_\_\_\_
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).  
\_\_\_\_\_
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. Exact physical address of the construction site or site office:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Expected commencement date: \_\_\_\_\_
10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site:

\_\_\_\_\_

12. Planned number of contractors on the construction site accountable to the principle contractor:

\_\_\_\_\_

13. Name(s) of contractors already chosen.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**Principal Contractor**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Client**

\_\_\_\_\_  
**Date**

\* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

\* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

**ANNEXURE 2**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**SECTION/REGULATION:** \_\_\_\_\_

**REQUIRED COMPETENCY:** \_\_\_\_\_

In \_\_\_\_\_ terms \_\_\_\_\_ of  
I, \_\_\_\_\_

representing the Employer) do hereby  
appoint \_\_\_\_\_

As the Competent Person on the  
premises at \_\_\_\_\_

(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows :-

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

\_\_\_\_\_

**ACCEPTANCE OF DESIGNATION**

I, \_\_\_\_\_ do hereby accept this Designation and  
acknowledge that I  
understand the requirements of this appointment.

**Date :** \_\_\_\_\_

**Signature :-** \_\_\_\_\_

**Designation :-** \_\_\_\_\_

**ANNEXURE 3**

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**DECLARATION**

In terms of the above \_\_\_\_\_ am personally assuming the  
Act I, \_\_\_\_\_ duties  
and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of  
Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations  
of the Employer as contemplated in the above Act are properly discharged.

**Signature :-** \_\_\_\_\_

**Date :** \_\_\_\_\_



**ANNEXURE 4**

**(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF TRANSNET SOC LIMITED)**

**SITE ACCESS CERTIFICATE**

Access to : \_\_\_\_\_ (Area)  
Name \_\_\_\_\_ of \_\_\_\_\_  
Contractor/Builder :- \_\_\_\_\_  
Contract/Order No.: \_\_\_\_\_

The contract works site/area described above are made available to you for the carrying out of associated works  
In terms of your contract/order  
with  
(company  
) \_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

**Signed :** \_\_\_\_\_ **Date :** \_\_\_\_\_

\_\_\_\_\_  
**PROJECT MANAGER**

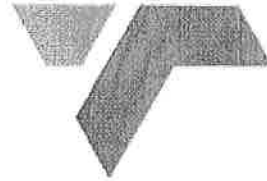
**ACKNOWLEDGEMENT OF RECEIPT**

**Name** \_\_\_\_\_ **of** \_\_\_\_\_ **I,**  
**Contractor/Builder :-** \_\_\_\_\_  
\_\_\_\_\_ **do hereby acknowledge and accept**  
\_\_\_\_\_ **the duties**  
**and obligations in respect of the Safety of the site/area of Work in terms of the**  
**Occupational Health and Safety Act; Act 85 of 1993.**

**Name :** \_\_\_\_\_ **Designation :** \_\_\_\_\_

**Signature :** \_\_\_\_\_ **Date :** \_\_\_\_\_

**TRANSNET**



Transnet SOC Limited Registration Number 1990/00900/06

## **TRANSNET SPECIFICATION**

### **E7/1 - SPECIFICATION FOR GENERAL WORK AND WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT**

(This specification shall be used in network operator contracts)

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## 1.0 SCOPE

- 1.1 This specification covers the network operator's requirements for general work and works on, over, under or adjacent to railway lines and near high voltage equipment.

## 2.0 DEFINITIONS

The following definitions shall apply:

"Authorised Person" - A person whether an employee of the network operator or not, who has been specially authorised to undertake specific duties in terms of Transnet's publication Electrical Safety Instructions, 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 the network operator to carry out work on its behalf.

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

"Dead" - Isolated and earthed.

"Electrical Officer (Contracts)" - The person appointed in writing by the Project Manager in terms of this specification 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 the network operator 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 1000 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 the network operator 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.

"Optical Fibre Cable" - Buried or suspended composite cable containing optical fibres used in:

- telecommunication networks for transmission of digital information and
- safety sensitive train operations systems.

"Project Manager" - As defined in the special conditions of the contract. The person or juristic person appointed by the network operator 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 (general or direct) staff under his control who perform general work or to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

"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.

"Works" - The contractual intent for the work to be done as defined in the contract at a defined work site.

**PART A - GENERAL SPECIFICATION****3.0 AUTHORITY OF OFFICERS OF TRANSNET**

- 3.1 The Contractor shall co-operate with the officers of the network operator and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of the network operator's railway lines and high-voltage equipment.
- 3.2 Without limiting the generality of the provisions of clause 3.1, any duly authorised representative of the network operator, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of the network operator's assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

**4.0 CONTRACTOR'S REPRESENTATIVES AND STAFF**

- 4.1 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 Contract Supervisor with the names, addresses and telephone numbers of the representatives.
- 4.2 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.
- 4.3 The Contractor shall ensure that all contractor staff receives relevant awareness, educational and competence training regarding safety as prescribed.

**5.0 OCCUPATIONS AND WORK PERMITS**

- 5.1 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 Contract Supervisor and at times to suit the network operator requirements.
- 5.2 The Contractor shall organise the Works in a manner which will minimise the number and duration of occupations and work permits required.
- 5.3 The network operator 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.
- 5.4 The Contractor shall submit to the Contract Supervisor, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 21 days before they are required. The network operator does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 5.5 The network operator 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 5.6 to 5.8.
- 5.6 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.
- 5.7 When the Contractor is notified less than 2 hours before the scheduled 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.
- 5.8 Reimbursement of the Contractor for any loss of working time in terms of clause 5.6 and 5.7, 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 Contract Supervisor certifies that no other work on which the labour and plant could be employed was immediately available.
- 5.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Contract Supervisor written confirmation of the date, time and duration of the occupation.
- 5.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of the Work Permit, signifying that he is aware of the work boundaries 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 Work Permit, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

## 6.0 SPEED RESTRICTIONS AND PROTECTION

- 6.1 When speed restrictions are imposed by the network operator 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.
- 6.2 When the Contract Supervisor 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 the network operator's and the Contractor's personnel and assets, the public and including trains.
- 6.2.1 The network operator will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Contract Supervisor, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in the Manual for Track Maintenance (Document no. BBB0481):
- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
  - Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
  - Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
  - Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)
- 6.3 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction which may be given by the network operator personnel providing protection.

## 7.0 ROADS AND ROADS ON THE NETWORK OPERATOR'S PROPERTY

- 7.1 The Contractor shall take every reasonable precaution to prevent damage to any roads or bridges used to obtain access to the site, and shall select routes, use vehicles, and restrict loads so that any extraordinary traffic as may arise from the moving of plant or material to or from the site shall be limited as far as is reasonably possible.
- 7.2 The Contractor shall not occupy or interfere in any way with the free use of any public or private road, right-of-way, path or street unless the Contract Supervisor has obtained the approval of the road authority concerned.

## 8.0 CLEARANCES

- 8.1 No temporary works shall encroach on the appropriate minimum clearances set out in the Manual for Track Maintenance (Document no. BBB0481):
- Drawing no. BE-97 Sheet 1: Horizontal Clearances: 1065mm gauge (Annexure 1 sheet 1)
  - Drawing no. BE-97 Sheet 2: Vertical Clearances: 1065mm gauge (Annexure 1 sheet 2)
  - Drawing no. BE-97 Sheet 3: Clearances: Platform (Annexure 1 sheet 3)
  - Drawing no. BE-97 Sheet 5: Clearances: 610mm Gauge (Annexure 1 sheet 5)

## 9.0 STACKING OF MATERIAL

- 9.1 The Contractor shall not stack any material closer than 3m from the centre line of any railway line without prior approval of the Contract Supervisor.

## 10.0 EXCAVATION, SHORING, DEWATERING AND DRAINAGE

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

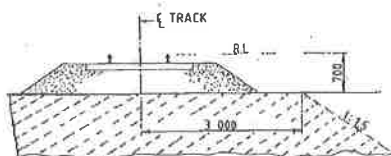


Fig. 1



- 10.2 The Contractor shall provide, at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.
- 10.3 Where required by the Contract Supervisor, 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.
- 10.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Contract Supervisor.
- 10.5 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.

#### **11.0 FALSEWORK FOR STRUCTURES**

- 11.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Contract Supervisor 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.
- 11.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Contract Supervisor 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 Contract Supervisor to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

#### **12.0 PILING**

- 12.1 The Contract Supervisor will specify the conditions under which piles may be installed on the network operator's property.

#### **13.0 UNDERGROUND SERVICES**

- 13.1 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.
- 13.2 Any damage shall be reported immediately to the Contract Supervisor, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

#### **14.0 BLASTING AND USE OF EXPLOSIVES**

- 14.1 When blasting within 500m of a railway line, the Contractor shall observe the requirements stipulated in this specification.
- 14.2 No blasting shall be carried out except with the prior written permission of the Contract Supervisor and under such conditions as he may impose.
- 14.3 On electrified lines the Contractor shall also obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 21 days notice of his intention to blast. No blasting shall be done in the vicinity of electrified lines unless a member of the network operator's electrical personnel is present.
- 14.4 The Contractor shall arrange for the supply, transport storage and use of explosives.
- 14.5 The Contractor shall have labour, tools and plant, to the satisfaction of the Contract Supervisor, available on the site to clear immediately any stones or debris deposited on the track or formation by blasting, and to repair any damage to the track or formation immediately after blasting. Repairs to the track shall be carried out only under the supervision of a duly authorised representative of the network operator.
- 14.6 The Contractor shall notify the Contract Supervisor of his intention to blast at least 21 days before the commencement of any blasting operations.
- 14.7 Before any blasting is undertaken, the Contractor and the Contract Supervisor shall jointly examine and measure up any buildings, houses or structures in the vicinity of the proposed blasting to establish the extent of any existing cracking or damage to such structures, etc. The Contractor, shall, subject to the provisions stipulated in the Contract Insurance Policy, make good any deterioration of such buildings, houses, or structures, which, in the opinion of the Contract Supervisor, was directly caused by the blasting.
- 14.8 After completion of the blasting the Contractor shall obtain a written clearance from each landowner in

the vicinity of the blasting operations to the effect that all claims for compensation in respect of damage caused by the blasting operations to their respective properties, have been settled.

- 14.9 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).

- 14.10 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Contract Supervisor, 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.

- 14.11 The flagmen described in clause 14.10, where provided by the network operator, are for the protection of trains and the network operator's 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.

- 14.12 The person described in clause 14.10 will record in a book provided and retained by the network operator, 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.

- 14.13 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 Contract Supervisor and the person who will do the blasting shall both sign the book whenever an entry described in clause 14.12 is made.

## **15.0 RAIL TROLLEYS**

- 15.1 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 Contract Supervisor and under the conditions stipulated by him.

- 15.2 All costs in connection with trolley working and any train protection services requested by the Contractor shall, be borne by the Contractor, unless otherwise agreed.

## **16.0 SIGNAL TRACK CIRCUITS**

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

- 16.2 No signal connections on track-circuited tracks shall be severed without the Contract Supervisor's knowledge and consent.

## **17.0 PENALTY FOR DELAYS TO TRAINS**

- 17.1 If any trains are delayed by the Contractor and the Contract Supervisor is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor as stipulated in the contract, for the period and number of trains delayed.

## **18.0 SURVEY BEACONS AND PEGS**

- 18.1 The Contractor shall not on any account move or damage any beacon, bench mark, reference mark, signal or trigonometrical station in the execution of the Works without the written approval of the Contract Supervisor.

Should the Contractor be responsible for any such occurrence, he shall report the circumstances to the Contract Supervisor who will arrange with the Director-General of Surveys for replacement of the beacon or mark at the cost of the Contractor.

- 18.2 The Contractor shall not move or damage any cadastral or mining beacon without the written approval of the Contract Supervisor and before it has been referenced by a registered land surveyor. Any old boundary beacon, which becomes an internal beacon on creation of new boundaries, shall not be moved without the written approval of the Contract Supervisor.

Should the Contractor move or damage any cadastral or mining beacon without authority, he shall be responsible for having it replaced, at his cost, by a land surveyor.

- 18.3 The Contractor shall preserve all pegs and bench marks. Such survey points shall not be removed without the written approval of the Contract Supervisor. Should any peg or benchmark be removed without authority, the Contract Supervisor will arrange for its replacement and the cost will be recovered from the Contractor. No claim will be considered for delay in replacing any such peg or bench mark. Each peg replaced shall be checked by the Contractor.
- 18.4 Where a new boundary has been established, beacons on the fence line shall not be disturbed, and fence posts or anchors may not be placed or excavations made within 0,6 m of any beacon without the prior written approval of the Contract Supervisor.

## 19.0 TEMPORARY LEVEL CROSSINGS

- 19.1 The Contract Supervisor may, on request of the Contractor, and if necessary for the purpose of execution of the Works, permit the construction of a temporary level crossing over a railway a line at a position approved by the Contract Supervisor and at the Contractor's cost. The period for which the temporary level crossing is permitted will be at the discretion of the Contract Supervisor.

- 19.2 The Contractor will provide protection and supervise the construction of the road over the track(s) and within the railway servitude at the level crossing, as well as the erection of all road signs and height gauges. All cost to be borne by the applicant.

The Contractor shall exercise extreme caution in carrying out this work, especially in respect of damage to tracks, services, overhead power and communications routes and prevent contact with "live" overhead electrical equipment.

Unless otherwise agreed, the Contractor will provide the service deviations or alterations to the network operator's track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to accommodate the level crossing.

- 19.3 The Contractor shall take all necessary steps including the provision of gates, locks and, where necessary, watchmen to restrict the use of the temporary level crossing to himself and his employees, his subcontractors and their employees, the staff of the network operator and to such other persons as the Contract Supervisor may permit and of whose identity the Contractor will be advised. If so ordered by the Contract Supervisor, the Contractor shall provide persons to control road traffic using the temporary level crossing. Such persons shall stop all road traffic when any approaching train is within seven hundred and fifty (750) metres of the temporary level crossing, and shall not allow road traffic to proceed over it until the lines are clear.
- 19.4 The Contractor shall maintain the temporary level crossing within the railway servitude in good condition for the period it is in use. A temporary agreement with the road authority to be concluded for the maintenance of the level crossing outside the railway servitude.
- 19.5 When the temporary level crossing is no longer required by the Contractor, or permitted by the network operator, the Contractor shall at his own cost remove it and restore the site and the network operator's track-, structure-, drainage-, electrical-, telecommunications- and train authorisation systems to its original condition. Work over the tracks and within the railway servitude will be supervised by the network operator.

## 20.0 COMPLETION OF THE WORKS

- 20.1 On completion of the works, the Contractor shall remove all the remaining construction plant and material from the site, other than material which is the property of the network operator, and leave the site in a clean, neat and tidy condition. If material and plant is required for the liability and maintenance period the Contract supervisor must authorise it's retention on site.

## 21.0 PROTECTION OF PERSONS AND PROPERTY

- 21.1 The Contractor shall provide and maintain all lights, guards, barriers, fencing and watchmen when and where necessary or as required by the Contract Supervisor or by any statutory authority, for the protection of the Works and for the safety and convenience of the public.

Red, yellow, green or blue lights may not be used by the Contractor as they can be mistaken for signals. Red, yellow, green or white flags shall only be used for protection by the Contractor. Within the precincts of a port the Contractor shall obtain the permission of the Port Captain before installing any light.

- 21.2 The Contractor shall take all the requisite measures and precautions during the course of the Works to:
- (i) protect the public and property of the public,
  - (ii) protect the property and workmen of both the network operator and the Contractor,
  - (iii) avoid damage to and prevent trespass on adjoining properties, and
  - (iv) ensure compliance with any instruction issued by the Contract Supervisor or other authorised person, and with any stipulation embodied in the contract documents which affects the safety of any person or thing.
- 21.3 The network operator will provide, at its own cost, protection for the safe working of trains during such operations as the Contract Supervisor may consider necessary. Protection by the network operator for any purpose whatsoever, does not absolve the Contractor of his responsibilities in terms of the Contract.
- 21.4 The Contractor shall take all precautions and appoint guards, watchmen and compound managers for prevention of disorder among and misconduct by the persons employed on the Works and by any other persons, whether employees or not, on the work site and for the preservation of the peace and protection of persons and property in the direct neighbourhood. Any relocation of camps because of disorder shall be at the Contractor's expense.
- 21.5 All operations necessary for the execution of the Works, including the provision of any temporary work and camping sites, shall be carried out so as not to cause veldt fires, ground and environmental pollution, soil erosion or restriction of or interference with streams, furrows, drains and water supplies.
- If the original surface of the ground is disturbed in connection with the Works, it shall be made good by the Contractor to the satisfaction of the land owner, occupier or responsible authority.
- 21.6 The Contractor shall take all reasonable steps to minimise noise and disturbance when carrying out the Works, including work permitted outside normal working hours.
- 21.7 Dumping of waste or excess materials by the Contractor shall, in urban areas, be done under the direction and control of, and at sites made available by the local authority. Dumping outside local authority boundaries shall be done only with the express permission and under the direction and control of the Contract Supervisor.
- 21.8 The Contractor shall comply with environmental protection measures and specifications stipulated by the Contract Supervisor and/or local and environmental authorities.
- 22.0 INTERFERENCE WITH THE NETWORK OPERATOR'S ASSETS AND WORK ON OPEN LINES**
- 22.1 The Contractor shall not interfere in any manner whatsoever with an open line, nor shall he carry out any work or perform any act which affects the security, use or safety of an open line except with the authority of the Contract Supervisor and in the presence of a duly authorised representative of the network operator.
- 22.2 The Contractor shall not carry out any work or operate any plant, or place any material whatsoever nearer than three metres from the centre line of any open line except with the written permission of the Contract Supervisor and subject to such conditions as he may impose.
- 22.3 Care must be taken not to interfere with or damage any services such as overhead wire routes, cables or pipes and optical fibre cable, except as provided for the work specified. The Contractor will be held responsible for any damage to or interruption of such services arising from any act or omission on his part or of any of his employees, or persons engaged by him on the Works. The cost of repairing, replacing or restoring the services, as well as all other costs arising from any damage to services, shall be borne by, and will be recovered from the Contractor.
- 22.4 Authority granted by the Contract Supervisor and the presence of an authorised representative of the network operator in terms hereof, shall not relieve the Contractor of his duty to comply with this specification.
- 23.0 ACCESS, RIGHTS-OF-WAY AND CAMPSITES**
- 23.1 Where entry onto the network operator's property is restricted, permission to enter will be given only for the purpose of carrying out the Works and will be subject to the terms and conditions laid down by the network operator.
- 23.2 The Contractor shall arrange for campsites, workplaces and access thereto as well as for any right-of-



way over private property to the site of the Works, and for access within the boundaries of the network operator's property. The owners of private property to be traversed shall be approached and treated with tact and courtesy by the Contractor, who shall, if necessary, obtain a letter of introduction to such property owners from the Contract Supervisor.

The Contractor shall be responsible for the closing of all gates on roads and tracks used by him or his employees. Except with the prior approval of the Contract Supervisor and the owner or occupier of any private land to be traversed, the Contractor shall not cut, lower, damage, remove or otherwise interfere with any fence or gate which is either on the network operator's property or on private property and which restricts access to the Works. Where such approval has been given, the Contractor shall prevent entry of animals or unauthorised persons onto the network operator's or private property, and shall make the fences safe against trespass at the close of each day's work.

- 23.3 The Contractor shall take all reasonable steps to confine the movement of vehicles and plant to the approved right-of-way to minimise damage to property, crops and natural vegetation.
- 23.4 When access is no longer required, and before completion of the Works, the Contractor shall repair, restore or replace any fence or gate damaged during execution of the Works to the satisfaction of the Contract Supervisor and shall furnish the Contract Supervisor with a certificate signed by the owner and occupier of land over which he has gained access to a campsite, workplace and the Works, certifying that the owner and occupier have no claim against the Contractor or the network operator arising from the Contractor's use of the land. Should the Contractor be unable to obtain the required certificate, he shall report the circumstances to the Contract Supervisor.

## **24.0 SUPERVISION**

- 24.1 The Contract Supervisor will provide overall technical superintendence of the Works, and may direct the Contractor in terms of the provisions of the Contract or in respect of any measures which the Contract Supervisor may require for the operations of the network operator, the safety of trains, property and workmen of the network operator, and for the safety of other property and persons. The Contractor shall carry out the directions of the Contract Supervisor. The superintendence exercised by the Contract Supervisor, including any agreement, approval, refusal or withdrawal of any approval given, shall not relieve the Contractor of any of his duties and liabilities under the Contract, and shall not imply any assumption by the network operator or by the Contract Supervisor of the legal and other responsibilities of the Contractor in carrying out the Works.
- 24.2 The Contract Supervisor may delegate to any deputy or other person, any of his duties or functions under the Contract. On receiving notice in writing of such delegation, the Contractor shall recognise and obey the deputy or person to whom any such duties or functions have been delegated as if he were the Contract Supervisor.
- 24.3 The Contractor shall exercise supervision over the Works at all times when work is performed or shall be represented by an agent having full power and authority to act on behalf of the Contractor. Such agent shall be competent and responsible, and have adequate experience in carrying out work of a similar nature to the Works, and shall exercise personal supervision on behalf of the Contractor. The Contract Supervisor shall be notified in writing of such appointment which will be subject to his approval.
- 24.4 The Contractor or his duly authorised agent shall be available on the site at all times while the Works are in progress to receive the orders and directions of the Contract Supervisor.

## **25.0 HOUSING OF EMPLOYEES**

- 25.1 The Contractor shall, where necessary, make his own arrangements for suitable housing of his employees. Where temporary housing is permitted by the Contract Supervisor on any part of the site, the Contractor shall provide suitable sanitation, lighting and potable water supplies in terms of the requirements of the local authority or the current network operator's specification; Minimum Communal Health Requirements in Areas outside the Jurisdiction of a Local Authority - E.4B, as applicable.
- 25.2 Fouling the area inside or outside the network operator's boundaries shall be prevented. The Contractor will be called upon by the Contract Supervisor to dispose of any foul or waste matter generated by the Contractor.

## **26.0 OPTICAL FIBRE CABLE ROUTES**

- 26.1 The Contractor shall not handle, impact, move or deviate any optical fibre cable without prior approval.
- 26.2 Works that in any way affect the optical fibre cable requires prior approval from the Contract Supervisor

who will determine the work method and procedures to be followed.

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**PART B - SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE ELECTRICAL EQUIPMENT****27.0 GENERAL**

- 27.1 This specification is based on the contents of Transnet's publication ELECTRICAL SAFETY INSTRUCTIONS, 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 the network operator, and the onus rests on the Contractor to ensure that he obtains a copy.

- 27.2 This specification must be read in conjunction with and not in lieu of the Electrical Safety Instructions.
- 27.3 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Electrical Safety Instructions.
- 27.4 The Electrical Safety Instructions 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).
- 27.5 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.
- 27.6 The Contractor shall regard all high-voltage equipment as "live" unless a work permit is in force.
- 27.7 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 the network operator's staff where this is necessary.
- 27.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

**28.0 WORK ON BUILDINGS OR FIXED STRUCTURES**

- 28.1 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.
- 28.2 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.
- 28.3 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.

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

- 29.1 No person may stand, climb or work, whilst on any platform, surface or foothold:
- 29.1.1 higher than the normal unrestricted access way, namely -
    - 29.1.1.1 external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and
    - 29.1.1.2 walkways between coaches and locomotives.
  - 29.1.2 of restricted access ways in terms of the Electrical Safety Instructions namely -
    - 29.1.2.1 the floor level of open wagons
    - 29.1.2.2 external walkways or decks of road-rail vehicles, on-track maintenance machines and material trains.
  - 29.1.3 Unauthorised staff working on these platforms must be directly supervised by duly authorised persons in terms of clause 607.1.3 of the Electrical Safety Instructions. These persons must attend the relevant electrical safety module training. A letter of training must then be issued by an accredited training authority. A Category C Certificate of Authority must be obtained from the

local depot examining officer.

- 29.2 When in the above positions no person may raise his hands or any equipment he is handling above his head.
- 29.3 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.
- 29.4 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.
- 29.5 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.
- 29.6 Where the conditions in clauses 30.1 to 30.4 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 the network operator and at the Contractor's cost, 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 of the network operator.

### **30.0 USE OF EQUIPMENT**

#### **30.1 Measuring Tapes and Devices**

- 30.1.1 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.
- 30.1.2 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.
- 30.1.3 Special measuring devices longer than 2 metres such as survey sticks and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer of the network operator, but these devices must not be used within 3 metres of "live" high-voltage equipment in rainy or wet conditions.
- 30.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in clauses 31.1.1 to 31.1.3 are required.
- 30.1.5 The restrictions described in 31.1.1 to 31.1.3 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.

#### **30.2 Portable Ladders**

- 30.2.1 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.

### **31.0 CARRYING AND HANDLING MATERIAL AND EQUIPMENT**

- 31.1 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 such material should be carried by two or more persons so as to maintain it as nearly as possible in a horizontal position. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any "live" high-voltage equipment.
- 31.2 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.
- 31.3 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.

### **32.0 PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.**

- 32.1 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.

32.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

32.3 The provisions of clauses 33.1 and 33.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

### 33.0 USE OF WATER

33.1 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.

### 34.0 USE OF CONSTRUCTION PLANT

34.1 "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.

34.2 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.

34.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

34.4 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.

34.5 Clauses 35.1 to 35.4 shall apply *mutatis mutandis* to the use of maintenance machines of any nature.

### 35.0 WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT

35.1 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.

35.2 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.

### 36.0 TRACTION RETURN CIRCUITS IN RAILS

36.1 DANGEROUS CONDITIONS CAN BE CREATED BY REMOVING OR SEVERING ANY BOND.

36.2 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 the network operator personnel.

36.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Contract Supervisor at least 7 days written notice when removal of such bonds is necessary.

- 36.4 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.

**37.0 HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY THE NETWORK OPERATOR**

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by the network operator, 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.

END

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**Part C4:**  
**Site information**

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**Part C4: Contract Data****Part C4.1: Site Information**

- 4.1 The works shall be performed at Transnet's Signal and Distribution Supply substations and 25kV AC traction substations under the control of the Depot engineer, Polokwane

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**CLAUSE BY CLAUSE STATEMENT OF COMPLIANCE TO THE NEC3 ECSC GENERAL CONDITIONS OF CONTRACT**

Routine testing on 25kV AC traction and 11kV Signal supply and distribution substations under the control of the Depot Engineer, Polokwane

**ECSC NEC GENERAL CONDITIONS OF CONTRACT**

Item	Comply	Doesn't Comply	Comment
<b>1.0 Contractual Obligations</b>			
1.0			
1.1			
1.2			
1.3			
1.4			
1.4.1			
1.4.2			
1.4.3			
1.4.4			
1.4.5			
1.5			
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1.12			
1.13			
1.14			
1.15			
1.16			
1.17			
<b>Pricing Instructions</b>			
2.1			
2.2			
2.3			
2.4			
2.5			
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2.17			

2.18			
2.19			
Part C2: Pricing Data			
Part C2.2: Price list			
Part C2.2: Price list			
Part C2.2: Price list			
Part C3: Contract Data			
Parct C3.1: Works Information			
3			
3.1			
3.1.1			
3.1.2			
3.1.3			
3.1.4			
3.1.5			
3.1.6			
3.1.7			
3.1.8			
3.1.9			
3.1.10			
3.1.11			
3.1.12			
3.1.13			
3.1.14			
3.1.15			
3.1.16			
Part C3.2: Particular specification			
3.2			
3.2.1			
3.2.1.1			
3.2.2			
3.2.2.1			
3.2.3			
3.2.3.1			
3.2.3.2			
3.2.3.3			
3.2.3.4			
3.2.3.5			
3.2.3.6			
3.2.4			
3.2.5			
3.2.5.1			
3.2.5.2			
3.2.5.3			
3.2.5.4			
3.2.6			
3.2.7			
Part C4.1: Site Information			
4.1			

# **CLAUSE BY CLAUSE STATEMENT OF COMPLIANCE TO SPECIFICATION E4.B (NOVEMBER 1996)**

## **MINIMUM COMMUNAL HEALTH REQUIREMENTS IN AREAS OUTSIDE THE JURISDICTION OF A LOCAL AUTHORITY: TEMPORARY FACILITIES FOR CONTRACTOR'S PERSONNEL**

Specification number E4B (NOVEMBER 1996)

Item	Comply	Doesn't Comply	Comment
<b>1.0 CAMPS</b>			
1.1			
1.2			
1.3			
1.4			
1.5			
1.6			
1.7			
1.8			
<b>2.0 HOUSING</b>			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.7.1			
2.7.2			
<b>3 WATER SUPPLY AND ABLUTION FACILITIES</b>			
3.1			
3.2			
3.3			
<b>4. SANITATION</b>			
4.1			
4.2			
4.3			
4.4			
4.4.1			
4.4.2			
4.5			
4.6			
4.7			
4.8			
4.9			
4.10			
4.11			
<b>5. RATIONS</b>			
5.1			

# **CLAUSE BY CLAUSE STATEMENT OF COMPLIANCE TO SPECIFICATION E4E (AUGUST 2006)**

**SAFETY ARRANGEMENT AND PROCEDUAL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

Specification number E4E Transnet (August 2006)

Item	Comply	Doesn't Comply	Comment
<b>1.0 General</b>			
1.1			
1.2			
1.3			
1.4			
1.5			
<b>2.0 DEFINITIONS</b>			
2.1			
2.2			
2.3			
2.4			
2.5			
2.6			
2.7			
2.8			
2.9			
<b>3.0 Procedual Compliance</b>			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
3.7			
<b>4.0 Special permits</b>			
4.1			
<b>5.0 Health and safety programme</b>			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
5.10			
5.11			
<b>6 FALL PROTECTION PLAN</b>			
6.1			
6.2			
6.3			
<b>7.0 Hazards and potential Hazards</b>			
7.1			
<b>8.0 Health and safety file</b>			
8.1			
8.2			
8.3			
<b>Annexure 1</b>			
<b>Annexure 2</b>			
<b>Annexure 3</b>			
<b>Annexure 4</b>			

**CLAUSE BY CLAUSE STATEMENT OF COMPLIANCE TO SPECIFICATION BBD 8210 VERSION 1**

**SPECIFICATIONS FOR WORKS ON, OVER, UNDER OR ADJUSCENT TO RAILWAY LINES AND NEAR HIGH VOLTAGE EQUIPMENT (E7/1)**

Specification number BBD 8210 VERSION 1

Item	Comply	Doesn't Comply	Comment
<b>1.0 SCOPE</b>			
1.1			
<b>2.0 DEFINITIONS</b>			
2.1			
<b>3.0 AUTHORITY OF OFFICERS OF TRANSNET</b>			
3.1			
3.2			
<b>4.0 CONTRACTOR'S REPRESENTATIVES AND STAFF</b>			
4.1			
4.2			
4.3			
<b>5.0 OCCUPATIONS AND WORK PERMITS</b>			
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			
5.7			
5.8			
5.9			
5.1			
<b>6.0 SPEED RESTRICTIONS AND PROTECTION</b>			
6.1			
6.2			
6.2.1			
6.3			
<b>7.0 ROADS AND ROADS ON THE NETWORK OPERATORS PROPERTY</b>			
7.1			
7.2			
<b>8.0 CLEARANCES</b>			
8.1			
<b>9.0 STACKING OF MATERIAL</b>			
9.1			
<b>10.0 EXCAVATION, SHORING, DE-WATERING AND DRAINAGE</b>			
10.1			
10.2			
10.3			
10.4			
10.5			
<b>11.0 FALSEWORK FOR STRUCTURES</b>			
11.1			
11.2			
<b>12.0 PILING</b>			
12.1			
<b>13.0 UNDERGROUND SERVICES</b>			
13.1			
13.2			
<b>14.0 BLASTING AND USE OF EXPLOSIVES</b>			
14.1			
14.2			
14.3			



	14.4		
	14.5		
	14.6		
	14.7		
	14.8		
	14.9		
	14.10		
	14.11		
	14.12		
	14.13		
15.0 RAIL TROLLEYS			
	15.1		
	15.2		
16.0 SIGNAL TRACK CIRCUITS			
	16.1		
	16.2		
17.0 PENALTY FOR DELAYS TO TRAINS			
	17.1		
18.0 SURVEY BEACONS AND PEGS			
	18.1		
	18.2		
	18.3		
	18.4		
19.0 TEMPORARY LEVEL CROSSINGS			
	19.1		
	19.2		
	19.3		
	19.4		
	19.5		
20.0 COMPLETION OF THE WORKS			
	20.1		
21.0 PROTECTION OF PERSONS AND PROPERTY			
	21.1		
	21.2		
	21.3		
	21.4		
	21.5		
	21.6		
	21.7		
	21.8		
22.0 INTERFERENCE WITH THE NETWORK OPERATOR'S ASSETS AND WORK ON OPEN LINES			
	22.1		
	22.2		
	22.3		
	22.4		
23.0 ACCESS, RIGHTS-OF-WAY AND CAMPSITES			
	23.1		
	23.2		
	23.3		
	23.4		
24.0 SUPERVISION			
	24.1		
	24.2		
	24.3		
	24.4		
25.0 HOUSING OF EMPLOYEES			
	25.1		
	25.2		
26.0 OPTICAL FIBRE CABLE ROUTES			
	26.1		
	26.2		
PART B: SPECIFICATION FOR WORK NEAR HIGH VOLTAGE ELECTRICAL EQUIPMENT			



<b>27.0 GENERAL</b>			
27.1			
27.2			
27.3			
27.4			
27.5			
27.6			
27.7			
27.8			
<b>28.0 WORK ON BUILDINGS OR FIXED STRUCTURES</b>			
28.1			
28.2			
28.3			
<b>29.0 WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING</b>			
29.1			
29.1.1			
29.1.1.1			
29.1.1.2			
29.1.2			
29.1.2.1			
29.1.2.2			
29.1.3			
29.2			
29.3			
29.4			
29.5			
29.6			
<b>30.0 USE OF EQUIPMENT</b>			
30.1			
30.1.1			
30.1.2			
30.1.3			
30.1.4			
30.1.5			
30.2			
30.2.1			
<b>31.0 CARRYING AND HANDLING MATERIAL AND EQUIPMENT</b>			
31.1			
31.2			
31.3			
<b>32.0 PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.</b>			
32.1			
32.2			
32.3			
<b>33.0 USE OF WATER</b>			
33.1			
<b>34.0 USE OF CONSTRUCTION PLANT</b>			
34.1			
34.2			
34.3			
34.4			
34.5			
<b>35.0 WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT</b>			
35.1			
35.2			
<b>36.0 TRACTION RETURN CIRCUITS IN RAILS</b>			
36.1			
36.2			
36.3			
36.4			
<b>37.0 HIGH VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY THE NETWORK OPERATOR</b>			
37.1			