



NEC3 Engineering & Construction Contract (ECC3)

Transnet SOC Limited

(REGISTRATION NO.1990/000900/06)

trading as

Transnet Freight Rail

TENDER NO. S.I.E 11010/1 CIDB

**TENDER DOCUMENT FOR THE REPLACEMENT OF
PRIMARY CIRCUIT BREAKERS AT VARIOUS
SUBSTATIONS: KOEDOESPOORT, WITBANK AND
BLOEMFONTEIN DEPOTS.**

OPENS: 27 February 2012

CLOSES: 27 March 2012 at 10h00 (Tuesday)

CONTENTS

Document reference	Title: TENDER DOCUMENT FOR THE REPLACEMENT OF PRIMARY CIRCUIT BREAKERS AT VARIOUS SUBSTATIONS: KOEDOESPOORT, WITBANK AND BLOEMFONTEIN DEPOTS.	No of pages
	THE TENDER	
Part T1	Tendering procedures	
T1.1	Tender Notice and Invitation to Tender <ul style="list-style-type: none"> Suppliers Code of Conduct 	8
T1.2	Tender Data	7
Part T2	Returnable documents	
T2.1	List of Returnable Documents	2
T2.2	Returnable Schedules	27
	THE CONTRACT	
Part C1	Agreement and Contract Data	
C1.1	Form of Offer and Acceptance	3
C1.2	Contract Data	16
C1.3	Form of Guarantee	5
C1.4	Adjudicator's appointment	1
Part C2	Pricing Data	
C2.1	Pricing Instructions	3
C2.2	Bill of Quantities	7
Part C3	Scope of Works	
C3.1	Works Information	25
C3.2	Secondary specifications	93
Part C4	Site Information	
C4.1	Site Information	2
	Principal Controlled Insurance 2011/2012	37

PART T 1: Tendering Procedures

Preview Copy Only

PART T1: TENDERING PROCEDURES

T1.1 TENDER NOTICE AND INVITATION TO TENDER

RFP NO. S.I.E 11010/1 CIDB

Transnet SOC Ltd trading as Transnet Freight Rail (the employer) invites tenders for the replacement of primary circuit breakers at various substations: Koedoespoort, Witbank and Bloemfontein Depots.

Tenderers should have a CIDB contractor grading designation of 6 EP or higher. Only tenderers, who are registered with the CIDB, are eligible to submit tenders.

The physical address for collection of tender documents is: Transnet Freight Rail Tender Advice Centre, Ground Floor, Inyanda House 1, 21 Wellington Road, Parktown.

Tender documents may be collected during working hours after **08:00 on 27 February 2012** and will only be available until **15:00 on Tuesday, 06 March 2012**.

On payment of an amount of R750.00 (per set) to be made to Transnet Freight Rail at the Standard Bank, account number 203158598, branch code 004805, ref no. RFP No. SIE11010/1CIDB. The official Bank receipt(s) franked with the official Bank stamp to be provided with the collection of a tender document. This amount is not refundable. No tenders will be sold after 15:00 on Tuesday, 06 March 2012.

All queries must be addressed via e-mail to:

Mr. Abel Molokwane
Tel No. (011) 584-0621
E mail : Abel.Molokwane@transnet.net

or

Sarah Assegai
E-mail: Sarah.Assegai@transnet.net

A **compulsory** clarification meeting with representatives of the Employer will take place at Barongwa Boardroom, Ground Floor, Inyanda House 2, 15 Girton Road, Parktown on Wednesday 07 March 2012 starting at 10h00. Tenderers without a valid tender document in their possession will not be allowed to attend the clarification meeting. The clarification meeting will be followed by a **compulsory** site inspection within travelling distance on the same day (at Koedoespoort Depot, details will be available during/after clarification meeting).

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.

This tender closes punctually at **10h00 on 27 March 2012**.

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

Tenderers are warned that a tender will be liable to disqualification should any attempt be made by a Tenderer either directly or indirectly to canvass any officer(s) or employees of Transnet Limited in respect of a tender between the date the tender is submitted and the date of the award. A Tenderer may, however, at any time communicate with the Chairperson of the Transnet Freight Rail Acquisition Council, at telephone no. 011 544 9486 on any matter relating to his tender.

Envelopes must not contain documents relating to any tender other than that shown on the envelope. *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 Tenderer to the actual tender documents.* Tenders submitted by Tenderers 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 Tenderer and any costs incurred in subsequent modifications to or replacement of equipment accepted by Transnet 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 Tenderer's account

BROAD-BASED BLACK ECONOMIC EMPOWERMENT ("BBBEE")

TRANSNET fully endorses and supports the South African Government's Broad-Based Black Economic Empowerment Programme and it is strongly of the opinion that all business enterprises have an equal obligation to redress the imbalances of the past. TRANSNET would therefore prefer to do business with business enterprises who share these same values and who are prepared to contribute to meaningful BBBEE initiatives (including and not limited to enterprise development, subcontracting and Joint Ventures) as part of their tender response.

Transnet would accordingly allow a "preference" in accordance with the 10% preference system, as per the Preferential Procurement Policy Framework Act 5 of 2000 (as amended) to companies who provide a BBBEE accreditation Certificate. All procurement and disposal transactions in excess of R30000 will be evaluated accordingly. All transactions below R30,000 will as far as possible be earmarked for EME's.

TRANSNET consequently urges Respondents (Large enterprises and QSE's – see below) to have themselves duly accredited by any one of the Accreditation Agencies **approved** by SANAS (South African National Accreditation System, under the auspices of the DTI).

In terms of Government Gazette No. 32467, Notice No. 810 dated 31 July 2009, as from 1 February 2010 only BBBEE certificates issued by Accredited Verification Agencies of Verification Agencies that are in possession of a valid pre-assessment letter from South African National Accreditation System will be valid.

However accreditation certificates issued by non-accredited verification agencies before 01 February 2010 and which are still within their one (1) year validity period will still be acceptable, until their expiry date provided that the accreditation was done in accordance with the latest codes (i.e. those promulgated on 9 February 2007).

BBBEE Accreditation Certificates issued after the published date i.e. 01 February 2010, by a Verification Agency not approved by SANAS, will NOT be acceptable as from 01 February 2010.

Enterprises will be rated by such Accreditation Agencies based on the following:

- (a) Large Enterprises (i.e. annual turnover >R35 million):
 - Rating level based on all 7 (seven) elements of the BBBEE scorecard
 - Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)
- (b) Qualifying Small Enterprises – QSE (i.e. annual turnover >R5 million but <R35 million):
 - Rating based on any 4 (four) of the elements of the BBBEE scorecard
 - Enterprises to provide BBBEE certificate and detailed scorecard (to be renewed annually)
- (c) Exempted Micro Enterprises – EME (i.e. annual turnover <R5m are exempted from being rated or verified):
 - Automatic BBBEE Level 4 rating, irrespective of race ownership, i.e. 100% BBBEE recognition
 - Black ownership >50% or Black Women ownership >30% automatically qualify as Level 3 BBBEE rating, i.e. 110% BBBEE recognition
 - EME's should provide documentary proof of annual turnover (i.e. audited financials) plus proof of Black ownership if Black ownership >50% or Black Women ownership >30% (to be renewed annually) from their Auditors / Accounting Officers

In addition to the above, Respondents who wish to enter into a Joint Venture (JV) or subcontract portions of the contract to BBBEE companies must state in their Tenders / Proposals the percentage of the total contract value which would be allocated to such BBBEE companies, should they be successful in being awarded any business. A rating certificate in respect of such BBBEE JV-partners and/or sub-contractors, as well as a breakdown of the distribution of the aforementioned percentage allocation must also be furnished with the tender response to enable Transnet to evaluate / adjudicate on all tenders received on a fair basis.

Each Respondent is required to furnish proof of its BBBEE status (Certificate and Detailed Scorecard) and ensure that the documentation is valid at the date of Tender Submission as stipulated above to TRANSNET.

Failure to submit your BBBEE Certificate and Detailed Scorecard will result in a score of zero being allocated for BBBEE evaluation.

Turnover: Indicate your company's most recent annual turnover: R.....
--

- If annual turnover <R5m, please attach auditors / accounting officers letter confirming annual turnover and percentage black ownership as well as Black Women ownership
- If annual turnover >R5m please attach BBBEE certificate and detailed scorecard from an accredited rating agency.

The DTI has created an online B-BBEE Registry (<http://www.dti.gov.za>) in order to provide a central and standardized source of the B-BBEE status of all entities, and to facilitate the flow of this information amongst entities by providing a Unique Profile Number (UPN) per each listing. Existing and prospective suppliers are therefore urged to list their B-BBEE status on the DTI Registry. Hence, entities verified by DTI, will receive the following benefits:



- Their BBBEE status will be verified and confirmed by the DTI, before listing on the Registry
- Listing on the Registry will provide suppliers the option to market themselves on the DTI B-BBEE Opportunities Network. This is a search engine that is designed to help businesses find B-BBEE compliant entities who match specific requirements in terms of the nature of services/goods provided, region, B-BBEE status or other search criteria.

Transnet supports this DTI initiative and will use the DTI Registry to verify prospective and existing suppliers' BBBEE credentials.

Kindly provide Transnet with your DTI B-BBEE UNIQUE PROFILE NUMBER with all tender submissions.

DTI BBBEE UNIQUE PROFILE NUMBER:

Failure to submit your BBBEE information in terms of the above-mentioned clauses will result in a score of zero being allocated for BBBEE evaluation.

Suppliers and Tenderers are requested to duly complete the Supplier Declaration Form (SDF) and provide all the relevant supporting attachments as requested. Failure to provide the following may disqualify your tender submission:-

1. Duly completed SDF
2. Current tax clearance certificate

The Supplier and Tenderer shall furnish proof of the above to Transnet.

Transnet at its sole discretion may decide to allow certain price preferences in order to uplift the historically disadvantaged in terms of the PPPFA (Act 5 of 2000).

Transnet insists on honesty and integrity beyond reproach at all times and will not tolerate any form of improper influencing, bribery, corruption, fraud, or any other unethical conduct on the part of bidders/Transnet employees. If, in the opinion of Transnet's Chief Operating Officer, a tenderer/contractor/supplier has or has caused to be promised, offered or given to any Transnet employee, any bribe, commission, gift, loan, advantage or other consideration, Transnet shall be entitled to revoke the tender / contract by following its internal policies that govern the Exclusion process. In such an event Transnet will be entitled to place any Tenderer/Contractor/Supplier who has contravened the provisions of Transnet's business ethics on its List of Excluded Tenderers. This List will also be distributed to all other State Owned Enterprises and Government Departments.

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

- Toll free anonymous hotline – 0800 003 056
- Email – Transnet@tip-offs.com
- Fax number – 0800 007 788
- Freepost DN 298, Umhlanga Rocks, 4320

CONFIDENTIALITY IS GUARANTEED.



delivering on our commitment *to you*

Suppliers Code of Conduct



Suppliers 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:

- » Transnet Procurement Policy - A guide for tenderers;
- » Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- » The Public Finance Management Act (PFMA);
- » The Broad Based Black Economic Empowerment Act (BBBEE); and
- » The Anti-Corruption Act.

This code of conduct has been compiled to formally apprise Transnet Suppliers of Transnet's expectations regarding 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 Enterprise, 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.

Transnet will not participate in corrupt practices. Therefore, it 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 with, and payments to, our suppliers.



- >> Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.

Employees may not receive anything that is calculated to:

- Illegally influence their judgement or conduct or to influence the outcome of a sourcing activity;
 - Win or retain business or to influence any act or decision of any person involved in sourcing decisions; gain an improper advantage.
- >> There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our suppliers to use our "Tip-offs Anonymous" Hotline to report these acts - 0800 003 056.

Transnet is firmly committed to free and competitive enterprise.

- >> Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust practices
- >> Transnet does not engage non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

Transnet's relationship with suppliers requires us to clearly define requirements, to 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 (origin of manufacture, specifications, intellectual property rights, etc);
 - Collusion;
 - Failure to disclose accurate information required during the sourcing activity (ownership financial situation, BBBEE status, etc.);
 - 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 must be 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.

Conflict 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 are:

- » Doing business with family members.
- » Having a financial interest in another company in our industry.



Show that you support good business practice by logging onto www.transnet-suppliers.net and completing the form.

This will allow us to confirm that you have received, and agree to, the terms and conditions set out in our Suppliers Code of Conduct.

TIP-OFFS ANONYMOUS HOTLINE
0800 003 056

PART T1.2: TENDER DATA

Preview Copy Only

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See 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.

F.1.1 The employer is Transnet Limited trading as **Transnet Freight Rail**.

F.1.2 The tender documents issued by the employer comprise:

Part T1: Tendering procedure

T1.1 Tender notice and invitation to tender

T1.2 Tender data

Part T2: Returnable documents

T2.1 List of returnable documents

T2.2 Returnable schedules

Part C1: Agreements and contract data

C1.1 Form of offer and acceptance

C1.2 Contract data

Part C2: Pricing data

C2.1 Pricing instructions

C2.2 Price list / Bill of quantities

Part C3: Scope of work

C3 Works information

Part C4: Site information

C4 Site information

F.1.3 The employer's agent is:

Name : **Malibongwe Mlonzi**

Address : **Table 1/16, Inyanda House 3, 12a St Andrews Road, Parktown**

Tel : **011 583 0149**

Cell : **083 414 4175**

E-mail : Malibongwe.Mlonzi@transnet.net

F.2.1.1 The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders:

- a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **6EP** class of construction work are eligible to submit tenders.

Joint ventures are eligible to submit tenders provided that:

1. Every member of the joint venture is registered with the CIDB;
2. The lead partner has a contractor grading designation in the **6EP** class of construction work; and
3. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **6EP** class of construction work.

F.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.

Confirmation of attendance to be notified at least one full working day in advance to:

Name : **Samuel Motele**

Tel : **011 583 0150**

Cell : **083 462 3351**

E-mail : Samuel.Motele@transnet.net

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.

F2.1.2 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.

The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.

F.2.13.3 Parts of each 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 in the Transnet Freight Rail Acquisition Council tender box which will be located in the foyer, and addressed to:

**The Chairperson
Transnet Freight Rail Acquisition Council
Ground Floor, Inyanda House
21 Wellington Road
Parktown
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 and time listed in the 'Notice and Invitation to Tender'; and must be enclosed in a sealed envelope which must have inscribed on the outside.

- (a) Tender No.
- (b) Description of work
- (c) Closing date of tender

- F.2.13.6 The two-envelope procedure will not be followed.
- F.2.15 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tenderer.
- F.2.15 Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
- F.2.16 The tender offer validity period is **12 weeks**.

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

- a) Substations locations and access routes
- b) Equipment currently installed

F.3.4 The time and location for opening of the tender offers is:
Time 11h00 on the closing date of tender
Location: **Table G66 and G69, West Wing, Ground Floor
Inyanda House
21 Wellington Road, Parktown
Johannesburg**

F3.11.1 The procedure for the evaluation of responsive tenders is Method 4

The score for quality is to be calculated using the following formula:

$$W_Q = W_2 \times S_O / M_S$$

Where W_2 is the percentage score given to quality and equals **65**

S_O is the score for quality allocated to the submission under consideration.

M_S is the maximum possible score for quality in respect of a submission.

The score for financial offer is calculated using Formula 2 (option 1) of SANS 294,

Where W_1 is the percentage score given to financial offer and equals 100 minus W_2 .

The score for quality and financial offer is to be combined, before the addition of the score for preference, as follows:

$$W_C = W_3 \times \left(1 + \frac{S - S_m}{S_m}\right)$$

Where W_3 is the number of tender evaluation points for quality and financial offer and equals:

- 1) 90 where the financial value, VAT inclusive, of all responsive tenders received have a value in excess of R 1 000 000; or

S is the sum of score for quality and financial offer of the submission under consideration

S_m is sum of the score for quality and financial offer of the submission scoring the highest number of points

Up to 100 minus W_3 tender evaluation points will be awarded to Tenderers for BBBEE preference.

F.3.11.3 Only those Tenderers who score a minimum score of 65 points in respect of the following quality criteria will be considered further.

Description of quality criteria and sub criteria		Maximum number of tender evaluation points
Approach paper which responds to the scope of work and outlines proposed methodology and work plan complete with time frames.	Technical approach and methodology	25
	Work plan with timeframes	
Experience of key staff	General qualifications	20
	Adequacy for assignment	
Compliance to specifications		20
Safety		10
<ul style="list-style-type: none"> • Risk • Environmental Management/ Integrated Management System 		10
Comparable projects		15
Total evaluation points for quality (W _Q)		100

CATEGORY: COMMERCIAL		
• Competitive Pricing		50
• Financial Capacity		50
TOTAL		100
CATEGORY: B-BBEE		
• B-BBEE Certificate and Scorecard		100
TOTAL		100

CATEGORY: SUPPLIER / ENTERPRISE DEVELOPMENT		
• Submission of SD / ED Strategy (also a pre-requisite)		10
• Quality of SD / ED Strategy		
• Skills Development		15
• Small Business Promotion		15
• Rural Development		15
• Job Creation / Preservation		15
CATEGORY: FURTHER RECOGNITION		
• Business Owned		4.5
• Business Black Woman Owned		4.5
• EME		4.5
• QSE		1.5
• Other initiatives		15
TOTAL		100

Criteria to be evaluated on the following scales:

a) Failed / Nil Submitted	=	0
Poor	=	1
Average	=	3
Good	=	4
Excellent	=	5

The table below outlines the method that will be used to score 'Compliance to Specification' under the category technical/ Practical. The rest of the categories will be evaluated based on table A3: "indicators for the rating of quality and sub criteria" extracted from the CIDB document 'Best Practice Guideline A4': Evaluating quality in tender submissions.

Compliance to specification	Point
Scoring Scale	
<ul style="list-style-type: none"> Compliance to drawings, specification and adopted standards (SANS, IEC, e.t.c) Compliance documentation submitted. Product proven and approved for Transnet Freight Rail use. 	<u>100</u>
<ul style="list-style-type: none"> Non-Critical deviation on specification / drawings with alternatives offered. Technical documentation submitted must be suitable for making a technical judgment. Documentation offered to prove international wide acceptance. 	<u>80</u>
<ul style="list-style-type: none"> Deviation from specification / drawing. Inadequate information submitted for making a technical judgment. 	<u>40</u>

The table below outlines the method that will be used to score 'Compliance to Specification' under the category technical/ Practical. The rest of the categories will be evaluated based on table A3: "indicators for the rating of quality and sub criteria" extracted from the CIDB document 'Best Practice Guideline A4': Evaluating quality in tender submissions.

F.3.13.1 Tender offers will only be accepted if:

- (a) The tenderer has in his or her possession 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 is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- (c) 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.
- (d) The tenderer has not:
 - i. abused the Employer's Supply Chain Management System; or
 - ii. failed to perform on any previous contract and has been given a written notice to this effect; and

- (e) has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

F.3.18 The number of paper copies of the signed contract to be provided by the employer is **one**.

The additional conditions of tender are:

- 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 rates and prices stated in the priced Bill of Quantities 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 Notwithstanding what is stated in Pricing Data, Tenderers are required to tender for **all** the areas quoted in the Bill of Quantities.
- 3 Tenders shall be completed in black ink only.
- 4 Open tender to engage new entrants. Advertising in the local media to encourage more entrants/Tenderers. The Contractor is to submit a proposal of how to fulfil the requirement to include disadvantaged people in participating in the economy in a sustainable manner by providing them with basic needs/ or skills within the "scope area"
- 5 ***Tender will be disqualified if all returnable documents and schedules are not returned.***

C1.2 CONTRACT DATA PROVIDED BY *EMPLOYER* (ECC3)

The conditions of contract are the NEC3 Engineering and Construction Contract (June 2005), copies of which may be obtained from the South African Institution of Civil Engineering (tel. 011-805 5947) or Engineering Contract Strategies (tel. 011 803-3008).

Part One – Data Provided by the *Employer*

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

Statements given in all contracts

1. General

(a) The conditions of contract are the core clauses and the clauses for main Option **B**, dispute resolution Option **W1** and secondary Options **X1, X3, X7, X13, X16, X18 and option Z** of the NEC3 Engineering and Construction Contract June 2005 (with amendments June 2006).

(b) **The Contractor's Offer and the Employer's Acceptance are in the document called Form of Offer and Acceptance – Part 1 (C1.1).**

(c) The *works* are the **Replacement of Primary Circuit Breakers at various Substations: Koedoespoort, Witbank and Bloemfontein depots.**

(d) The *Employer* is

Name **Transnet SOC Ltd trading as Transnet Freight Rail**

Address **49th Floor, Carlton Centre, 150 Commissioner Street, Johannesburg, 2000.**

(e) The *Project Manager* is

Name **Malibongwe Mlonzi**

Address **Table 1/16, Inyanda House 3, 12a St Andrews Road Parktown**

(f) The *Supervisor* is

Name **Samuel Motele**

Address **Table 1/17, Inyanda House 3, 12a St Andrews Road Parktown**

- (g) The *Adjudicator* **will be appointed when a dispute arises.**
 - (h) The Works Information is in **the document called “Scope of Work” – Part 3 (C3).**
 - (i) The Site Information is in **the document called “Site Information” – Part 4 (C4).**
 - (j) The boundaries of the site **are the area within the perimeter fence of the substation.**
 - (k) The *language of this contract* is **English.**
 - (l) The *law of the contract* is the law of **the Republic of South Africa.**
 - (m) The *period for reply to a communication* is **2 weeks. (Matters to be referred to Acquisition Council for approval will take longer).**
 - (n) The *Adjudicator nominating body* is **the Association of Arbitrators (Southern Africa).**
 - (o) The *tribunal* is **Arbitration.**
 - (p) The following matters will be included in the Risk Register
 - i. Delays in the delivery of Replacement Circuit Breakers.
 - ii. Cancellation of working permits.
 - iii. Lack of staff for supervision.
 - iv. Work near live electrical equipment (OHTE and other) holds a danger of electrocution for workers.
 - v. Theft of equipment before handover.
 - vi. Site Accessibility (road conditions, vegetation, etc).
- 3 Time (a) The *starting date* is **to be announced upon awarding of the contract**
- (b) The *Contractor* submits revised programmes at intervals no longer than **4 weeks.**
- 4 Testing and Defects (a) the *defects date* is **52 weeks** after completion of each site.
- (b) the defect correction period is **2 weeks** after notification thereof.
- 5 Payment (a) the *currency of this contract* is the **South African Rand (ZAR).**
- (b) The *assessment interval* is **on the 10th of each calendar month.**

- (c) Payments will be made once a month for completed installations.
- (d) The *interest rate* is **2 (two) percent** per annum above the **prime lending** rate of the **Standard Bank of South Africa Ltd.** as determined from time to time.

6 Compensation events

- (a) The place where weather is to be recorded is at the town closest to the substation where work is being carried out.
- (b) The *weather measurements* to be recorded for each calendar month are:
 - (i) the cumulative rainfall (mm)
 - (ii) the number of days with rainfall more than 10mm
 - (iii) the number of days temperature below zero
 - (iv) the number of days snow lying on the ground at 09h00
- (c) The *weather measurements* are supplied by the **SA Weather Service.**
- (d) The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at the town closest to the substation where work is being carried out, and which are available from **SA Weather Service.**

8 Risks and insurance

- (a) The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is **whatever the Contractor deems desirable in addition to that provided by the Employer.**
- (b) The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is that **which is prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.**

Optional statements

- (a) arbitration
- The arbitration procedure is the **Rules for the Conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa). The Arbitrator is mutually agreed to by the parties and is appointed by the association of Arbitrators.**
 - The place where arbitration is to be held is **Johannesburg.**
 - The person or organisation who will choose an Arbitrator if the Parties cannot agree a choice is **The Chairman of the Association of Arbitrators (Southern Africa).**
- (b) The completion date for the whole of the *works* is a maximum of **12 Months from the date of awarding contract.**
- (c) The *Contractor* is to submit a first programme for acceptance within **4 weeks** of the Contract Start Date.
- (d) The period within which payments are made is **30 days within receipt of the necessary tax invoice.**
- (e) The *Employer* provides these insurances from the Insurance Table
1. Insurance against loss of or damage to the *works*, Plant and Materials is **as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:**
<http://www.transnet.co.za/PolicyDocuments.aspx>
Cover/indemnity is **to the extent as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:**
<http://www.transnet.co.za/PolicyDocuments.aspx>
The deductibles are **as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:**
<http://www.transnet.co.za/PolicyDocuments.aspx>
 2. Insurance against loss of or damage to Equipment (**Temporary Works only**) **as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:**
<http://www.transnet.co.za/PolicyDocuments.aspx>

Cover/indemnity is to the extent as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:

<http://www.transnet.co.za/PolicyDocuments.aspx>

The deductibles are as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:

<http://www.transnet.co.za/PolicyDocuments.aspx>

3. Insurance against loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:

<http://www.transnet.co.za/PolicyDocuments.aspx>

Cover/indemnity is to the extent as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:

<http://www.transnet.co.za/PolicyDocuments.aspx>

The deductibles are as stated in the insurance policy for contract works and public liability (Principal Controlled Insurance), which is available on the following website:

<http://www.transnet.co.za/PolicyDocuments.aspx>

(f) **If additional insurances are to be provided**

The *Employer* provides these additional insurances

1. **Contract Works SASRIA insurance subject to the terms exceptions and conditions of the SASRIA coupon policy.**

Cover/indemnity is to the extent provided by the SASRIA coupon policy

The deductibles are **in respect of each and every theft claim 0, 1% of Contract Value subject to a minimum of R2 500 and a maximum of R25 000.**

The *Contractor* provides these additional insurances

- 1 Where the Contract requires that design of any part of the *works* shall be provided by the *Contractor*, he shall satisfy the *Employer* that professional indemnity insurance cover in connection therewith has been effected.
- 2 Where the Contract involves manufacture, and/or fabrication of Plant and Materials, components or other goods to be incorporated into the *works*, at premises other than the site, the *Contractor* shall satisfy the *Employer* that such Plant and Materials, components or other goods for incorporation in the *works* are adequately insured during manufacture and/or fabrication.
- 3 Should the *Employer* have an insurable interest in such items during manufacture or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any subcontractor.
4. The insurance coverage referred to in 1 and 2 above shall be obtained from an insurer in terms of an insurance policy approved by the *Employer*. The *Contractor* shall arrange with the insurer to submit to the *Project Manager* the original and duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the *Contractor*.

Option B

All Option B Clauses apply with the following amplification:-

- (a) The last sentence of Clause 63.13 of Option B to be deleted and the following substituted:-

“The *Employer* and the *Contractor* agree, rates and lump sums to be used to assess a compensation event instead of Defined Cost”
- (b) When agreed rates and lump sums are used, Compensation Events are assessed as follows:-
 - (i) Where in the opinion of the *Project Manager* work is of a similar character and executed under similar conditions to work priced in the Bill of Quantities, it is to be valued at such rates and prices (including General Items) contained therein as may be applicable; or

- (ii) Where work is not of a similar character or is not executed under similar conditions, the rates and prices in the Bill of Quantities are to be used as the basis for valuation as far as may be reasonable; or
- (iii) Where work cannot reasonably be valued in accordance with Clauses (c)(i) and (c)(ii) above, suitable rates or prices are agreed upon between the *Project Manager* and the *Contractor* after due consultation by the *Project Manager* with the *Employer* and the *Contractor*; or
- (iv) In respect of additional or substituted work, the *Project Manager* may, if in his opinion it is necessary or desirable, issue an instruction that the work be executed in some other appropriate manner.
- (v) If the parties cannot agree, the *Project Manager* notifies the *Contractor* accordingly and makes his own assessment.

Option X1

1.1 The following price adjustment for inflation will apply (if the contract is more than 12 months - otherwise not applicable):

1.1.1 A contract price adjustment factor to be determined in accordance with the formula as described below will be applied to allow for all increases or decreases in costs, from any cause whatsoever, which may occur after the closing date of the submission of tenders and before the date of completion. The factor shall be rounded off to six decimal places.

1.1.2 The contract price adjustment factor shall be -

$$(1 - x) \left(0.17 \frac{L_t}{L_o} + 0.04 \frac{P_t}{P_o} + 0.60 \frac{M_t}{M_o} + 0.04 \frac{D_t}{D_o} - 1 \right)$$

where $x = 0,15$ and

1.1.3 L_o , P_o , M_o and D_o are respectively labour, machinery, material and diesel fuel indices ruling for the calendar month two (2) months prior to closing date of the tender;

1.1.4 L_t , P_t , M_t and D_t are respectively labour, machinery, material and diesel fuel indices ruling for the calendar month two (2) months prior to the date of measurement.

1.1.5 The indices to be used shall be those for the Consumer Price Index and Production Price Index as obtained from the monthly Statistical News Release published by STATS South Africa.

- L_o and L_t shall be the labour indices for Metropolitan and Urban Areas (P0141.1 Table A).
- P_o and P_t shall be the average of the price indices of Non-Electrical Machinery multiplied by an equalizing factor of 1.00866 and Transport Equipment in the ratio of 1:1 (P0142.1 Table 8 item 2.16 and 2.21 respectively).

- Mo and Mt shall be the price indices of materials used in Mechanical Engineering (P0142.1 Table 11).
- Do and Dt shall be the price indices of "Diesel Oil – Average Coastal and Witwatersrand" (P0142.1 Table 12).

1.1.6 When the value of an index at the time of calculation is not known the latest available index shall be used and any correction necessary shall be made by addition or subtraction in subsequent monthly payment certificates.

1.1.7 The amounts to be added to or subtracted from the monthly payment certificates shall be calculated by multiplying the amount certified for payment for that month (but excluding amounts not subject to price adjustment) by the contract price adjustment factor for that month.

1.1.8 Adjustment to measurements of previous months' quantities will be included in calculation of the amount certified for payment and will therefore be subject to the price adjustment factor of the current measurement month.

1.1.9 Any additions to or deductions from the amount payable, brought about by the application of the contract price adjustment factor, shall be deemed to have made full allowance for all increases or decreases in cost from any cause whatsoever, including all overhead costs as well as any increases and decreases therein, and profit.

1.1.10 Value added tax shall be excluded from individual payment item rates and price adjustment indices as it will be added to the total of the month's measurement, after price adjustment has been made in terms hereof.

Option X3:

- (a) The amount payable to the Contractor in respect of rate exchange will be adjusted for increases and decreases in costs of imported materials, due to fluctuations in foreign currency exchange rates after the conclusion of the Contract. Tenderers shall indicate whether or not their tenders or part(s) thereof are subject to variation on account of exchange rate fluctuations.
- (b) Where no particulars are furnished, such tenders will be deemed to be not subject to variation on account of exchange rate fluctuations.
- (c) The rate of exchange to be used by Tenderers in the computation of their tender rates and/or prices and which is to be quoted in the appendix is the rate of exchange on the day 7 days prior to the date on which tenders close.
- (d) Forward cover to be arranged by the contractor within 2 weeks after notification of award.

Option X7

'Delay damages' is a penalty in South African Law and the word penalty is to replace delay damages throughout the Contract.

- (a) Penalty for late Completion of the whole of the *works* is **R3,000.00** per day

Option X13

- (a) The amount of the Guarantee (Performance Bond) is to be calculated as **5 % or 10%** of the tender price. (Excl. VAT).

The Contractor has the option of either providing the guarantee of 5% and having retention money of 10% deducted from each claim, or alternatively, providing a guarantee of 10% and having retention money of 5% deducted from each claim.

- (b) The Form of Guarantee (or Performance Bond) is in Clause C 1.3 of Part C1.

Option X16

- (a) The retention free amount is **Nil**

The retention percentage is **5 or 10 %**, depending on the option exercised in option X13 above.

Option X18

X18.1 The contractor's responsibility to the employer for the employer's loss is limited to 20% of the contract value.

X18.2 For any one event, the liability of the Contractor to the Employer for loss of or damage to the Employer's property is limited to R 2 million

Option Z

The additional Conditions of Contract are:-

Z1.1 Clause 11.2 (34) – Day

Day is a calendar day and where a specific number of days is allowed in the Contract for the performance of any act or is stipulated for the extinction of any right or the duration of any event or circumstance, public holidays and the annual Christmas break from 16 December to 5 January (both days included) is excluded from the calculation of the number of days concerned.

Z1.2 Clause 28.1 – Intellectual property

Intellectual property rights (including patents, copyright, trade marks etc) rest with the party owning them and the *Contractor* indemnifies the *Employer* from any liability arising from infringement of such intellectual property rights. [See Clauses 80.1, 83.1 and 83.2]

Z1.3 Clause 28.2 – Assignment & cession

Neither the *Contractor* nor the *Employer* may, without the written consent of the other, assign the Contract or any part thereof or any obligation under the Contract or cede any right or benefit there under.

Z1.4 Clause 28.3 – Non-Waiver

No grant by the *Employer* or the *Contractor* to the other of any concession, waiver, condonation or allowance is, in respect of any specific event or circumstance other than that in respect of which the grant was made to constitute a waiver of the rights of the grantor in terms of the Contract or an *estoppel* of the grantor's right to enforce the provision of the Contract.

Z1.5 Clause 28.4 – Limitation of the authority of the Project Manager

- i. The Project Manager is authorised to agree to increases to the contract value to a maximum of R2 million, or 10% of the Total Contract Value, whichever is the lesser amount, without referring it to the management of the Employer.
- ii. If referral to management is necessary, a period of 6 weeks over and above any times allowed for in the contract is to be provided.

Z1.6 Foreign Currency

- iii. The Contractor shall take forward cover within 2 weeks of contract award.

The additional conditions of contract are:

1. Z1.7 Housing of Contractor's staff at substations will not be permitted.
2. Z1.8 The Contractor shall provide for any Electrical Power and Water that may be required during the execution of the works as the availability of these services on site is not guaranteed.
3. Z1.9 The Contractor must provide adequate storage, at his own expense to the satisfaction of the Supervisor.
4. Z1.10 The Contractor shall, on completion of the Works, clear the site of all leftover items of material to the satisfaction of the Supervisor.
5. Z1.11 The Contractor shall attend progress meetings when convened by the Supervisor (normally once a month). Such meetings will be for the purpose of discussing progress, planning, delays, materials, conditions and the co-ordination of site activities. The Project Manager or Supervisor or their deputies will chair the meetings and the proceedings shall be minuted and circulated by the Supervisor.
6. Z1.12 The Contractor shall attend ad hoc site meetings when convened by the Supervisor. Such meetings will be for the purpose of discussing specific issues or problems relating to specifications and adherence thereto, quality and contractual matters.
7. Z1.13 The Contractor shall supply and have available at all times, at the worksite or in his site office, A4 carbon copy books with detachable numbered sheets in triplicate, to be used as:
 - a. Z1.13.1 Site Instruction book for receiving and recording instructions issued. All instructions recorded shall be signed by the Supervisor and immediately acknowledged by the counter signature of the Contractor or his agent.
 - b. Z1.13.2 Daily diary/record book with a page per day for recording all events affecting the progress of the works such as drawings received on site, arrivals and dispatch of plant, material received or applied for, breakdowns, delays, work done during the day, etc. Entries shall be made by the Contractor or his appointed agent and signed by both parties daily. Those days on which no events take place must be ruled out and "NIL" entered. The site diary will be used as documentary proof to establish the validity of any claims in terms of the execution of the Contract.

- c. Z1.13.3 The third book will be used as the Risk Register required by the Contract for Engineering and Construction Work, NEC3.
8. Z1.14 Site diaries shall be forwarded/ handed to the Supervisor.
9. Z1.15 The Contractor and each member of his personnel who may be required to enter high voltage substations for the purpose of performing work in terms of this contract must:
 - a. Z1.15.1 Observe the safety regulations regarding the entry of maintenance personnel into all buildings, sub- and tie-stations, control rooms and equipment sites accommodating equipment to perform work by him, as stipulated in Transnet Freight Rail's Electrical Safety Instructions as well as the E7/1 Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment. Failure to comply with these requirements will render the Contractor liable for the payment of penalties and/or direct or indirect cost resulting from such negligence. The regulations and instructions having been made available to the Contractor, it will be the Contractor's responsibility to make sure that his personnel are in possession of these instructions.
 - b. Z1.15.2 Ensure that they have entered the relevant details onto the Substation Book prior to entering high voltage substations of the Client.
 - c. Z1.15.3 Ensure compliance with Specification E4E (Safety Appointments, Safety Plan, etc).
10. Z1.16 The Maintenance Managers (Electrical) at the Depots must be contacted to arrange for Work Permits or Supervision, names and contact details will be supplied to the contractors on award of contract.
11. Z1.17 The Client will perform all switching required, during the contract.
12. Z1.18 The Client reserves the right to cancel an authorised occupation or work permit at any time, even during the period of such occupation or work permit.
13. Z1.19 Special care shall be exercised when welding or flame cutting operations occur and the Contractor is required to provide suitable fire fighting equipment at close hand to these operations as prescribed by the Machinery and Occupational Health and Safety Act, 1993.
14. Z1.20 The Contractor shall provide the necessary number of suitable first aid kits, one set in the camp and one set at each working team. He shall maintain these outfits fully equipped at all times.
15. Z1.21 The Contractor shall comply with all applicable legislation, regulations issued in terms thereof and Transnet's safety rules which shall be entirely at the Contractor's cost, and which shall be deemed to have been allowed for in the tendered rates and prices.

16. Z1.22 The Contractor shall report all accidents in writing to the Supervisor. Any accident resulting in the death of or injury to any person on the Works shall be reported within 24 hours of its occurrence, and any other accident shall be reported within 48 hours of its occurrence.
17. Z1.23 The Contractor shall inform the Supervisor of the names and addresses and telephone numbers of his personnel to be called in emergencies. The Contractor will be responsible for seeing that one or more members of his personnel are available on call at all times to receive fault or failure reports.
18. Z1.24 Members of the Contractor's personnel shall, while on call, keep the duty personnel in the Infrastructure Control Office informed of their movements in order that they may be contacted without delay in case of an emergency.
19. Z1.25 The Contractor will be held responsible and accountable for any delays to the train service that he may cause during the contract period.
20. Z1.26 Due to direct Supervision being required from Transnet Freight Rail, no work will be undertaken outside normal working hours.
21. Z1.27 After completion of the installation, the whole of the works shall be inspected, and the Contractor shall rectify to the satisfaction of the Supervisor any deficiencies that may exist.
22. Z1.28 Transnet Freight Rail will perform the final inspections with the Contractor.
23. Z1.29 Acceptance by the Supervisor of satisfactory completion of the work in no way relieves the Contractor from his duty to ensure compliance to specifications.
24. Z1.30 The Client shall require a guarantee of all the work, equipment and material for a period of twelve calendar months after date of final acceptance of the work.
25. Z1.31 The Contractor shall make good any defects, due to inferior material, equipment or workmanship, which may arise during this period within 2 weeks after notification.
26. Z1.32 If urgent repairs have to be carried out by the Client's staff to maintain supply during the guarantee period the Contractor shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse the Client the cost of material and labour.
27. Z1.33 The client reserves the right to withdraw a handover certificate should the contractor fail to rectify defects to the satisfaction of the Supervisor.
28. Z1.34 The Contractor shall be responsible for providing security on site for his personnel, plant and material.
29. Z1.35 The Contractor shall comply with the requirements of Specification BBB2007 (Environmental Guidelines and Specifications for Electrical Construction Work) during the contract period.

C1.2 CONTRACT DATA PROVIDED BY CONTRACTOR (ECC3)

Part Two – Data Provided by the Contractor

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

Statements given in all contracts

(a) The Contractor is

Name

Address

.....
.....

(b) The *direct fee percentage* is %

(c) The *subcontracted fee percentage* is %

(d) The *working areas* are the Site and

.....

(e) The key people are

(1) Name

Job

Responsibilities

.....

Qualifications

Experience

.....

.....

(2) Name

Job

Responsibilities

.....

Qualifications

Experience



.....
.....
(3) Name
Job
Responsibilities
.....
Qualifications
Experience
.....
(4) Name
Job
Responsibilities
.....
Qualifications
Experience
.....
.....

(f) The following matters will be included in the Risk Register
.....
.....
.....
.....
.....

Optional statements (a) If the Contractor is to provide Works Information for his design

The Works Information for the Contractor's design is in
.....
.....
.....
.....

(b) If a programme is to be identified by the Contract Data.

The programme identified in the Contract Data is
.....

(c) If the Contractor is to decide the completion date for the whole of the works



The *completion date* for the works is

Depot	Completion Period (Months)
Koedoespoort	
Witbank	
Bloemfontein	

If Option A or B is used

Data for SSCC

- (a) The percentage for people overheads is%.
- (b) The published list of Equipment is the last edition of the list published by
.....
- (c) The percentage for adjustment for Equipment in the published list is% (state plus or minus).
- (d) The rates for other Equipment are
- | Equipment | size or capacity | rate |
|-----------|------------------|-------|
| | | |
| | | |
| | | |
| | | |
| | | |
- (e) The hourly rates for Defined Cost of design outside the Working Areas are
- | category of employee | hourly rate |
|------------------------|-------------|
| Senior Engineer | |
| Junior Engineer | |
| Draughtsperson | |
| Tracer | |
- (f) The percentage of design overheads is%
- (g) The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are **all of the categories listed above.**

PART C2
PRICING DATA

CONTENTS

Section	Description
C2.1	PRICING INSTRUCTIONS
C2.2	BILL OF QUANTITIES

Preview Copy Only

C1.3 FORMS OF SECURITIES

Preview Copy Only

C1.3 FORMS OF SECURITIES (ECC3)

Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract (June 2005)

The *conditions of contract* stated in the Contract Data Part 1 may include this Secondary Option:

Option X13: Performance Bond

This Secondary Option requires a bond or guarantee “in the form set out in the Works Information”.

Pro forma documents for this bond and guarantee are provided here for convenience but are to be treated as part of the Works Information.

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

This pro forma document is available for use by the *Surety* on the *Employer's* web page at www._____

Drafting instructions:

1. Select the required pro formas by deleting the ones not required, then complete all the details except that which the bond / guarantee provider is required to complete.
2. There are two pro formas suitable for use with Option X13, but only one of them can be used; the Reducing Value Guarantee is generally used only for building works.
3. Then delete these drafting instructions. Delete this whole Securities section if none of the above secondary Options have been selected by the *conditions of contract*.

Pro forma Performance Bond (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Surety)

**Transnet Freight Rail
A Division of Transnet SOC Limited
49th Floor, Carlton Centre
150 Commissioner Street
Johannesburg
2000.**

Date:

Dear Sirs,

Performance Bond for Contract No. S.I.E 11010/1 CIBD

With reference to the above numbered contract made or to be made between

Transnet Freight Rail, A Division of Transnet SOC Limited

(the *Employer*) and

{Insert registered name and address of the *Contractor*}

(the *Contractor*), for

**Replacement of Primary Circuit Breakers at various substations phase 3,
stage 2: Koedoespoort, Witbank and Bloemfontein depots.** (the *works*).

I/We the undersigned

on behalf of the Surety

of physical address

and duly authorised thereto do hereby bind ourselves as Surety and co-principal debtors in *solidum* for the due and faithful performance of all the terms and conditions of the Contract by the *Contractor* and for all losses, damages and expenses that may be suffered or incurred by the *Employer* as a result of non-performance of the Contract by the *Contractor*, subject to the following conditions:

1. The terms *Employer*, *Contractor*, *Project Manager*, *works* and Defects Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
2. We renounce all benefits from the legal exceptions "Benefit of Execution and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner, which the Employer deems, fit and without being advised thereof the Surety shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Surety. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.

4. This bond will lapse on the earlier of
- the date that the Surety receives a notice from the *Project Manager* stating that the last Defects Certificate has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
 - the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.
5. Always provided that this bond will not lapse in the event the Surety is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.
6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Surety of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.
7. Our total liability hereunder shall not exceed the sum of:
- (say) _____
- R _____
8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa.

Signed at _____ on this _____ day of _____ 200_

Signature(s)	_____
Name(s) (printed)	_____
Position in Surety company	_____
Signature of Witness(s)	_____
Name(s) (printed)	_____

Part C1.4 Adjudicator's Contract

Preview Copy Only

CONTRACT DATA

- Statements given in all contracts**
- The *contract between the Parties* is **To be advised**.....
 - The *period of retention* is ...**N/A**..... weeks.
 - The *law of the contract* is the law of **the Republic of South Africa**
 - The *language of this contract* is **English**.....
 - The amount of the advanced payment is **N/A**.....
 - The Adjudicator's *fee* is...**To be advised**.....per hour.
 - The *interest rate* is **2%** per annum above the prime lending rate of the **Standard Bank of South Africa Ltd.**
 - The *currency of this contract* is **ZAR**.....
 - The Adjudicator's appointment terminates on **(To be advised)**.....

- Optional statements**
- If the period for payment of invoices is not three weeks**
- The period for payment of invoices is **.four**.....weeks.
- If additional conditions of contract are required**
- The *additional conditions of contract* are
To be advised
-
-
-
-

Part C2: Pricing Data

Preview Copy Only

Part C2.1

PRICING INSTRUCTIONS

1. The agreement is based on the NEC Engineering and Construction contract 3.
2. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
3. 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.
4. The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk – quantities should thus be confirmed for correctness before ordering.
5. The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount of the Preliminaries and any amount in respect of contract price adjustment if provided for in the contract.
6. The following abbreviations are used in the Bills of Quantities:

Hr	=	Hour
Ea	=	Each
XFR	=	Transformer
P&G	=	Preliminary and General
Quant.	=	Quantity
*	=	Contractor to determine
7. The prices and rates in these Bills of Quantities 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.
8. The prices/rates supplied in Tables A and B shall be for 'supply and install' unless stated otherwise.
9. 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. The contractor shall provide for all work needed to make the substation complete and any items not included by the contractor under item "Other" of the "Schedule of Rates and Prices".
10. Where no quantity has been provided against an item in the Bills of Quantities, the Contractor shall use their discretion and provide the quantity. If the contractor does not agree with given units or quantities – the contractor to indicate in a separate note.
11. The quantities set out in these Bills of Quantities are approximate and may not necessarily represent the actual amount of work to be done.

12. The short descriptions of the items of payment given in these Bills of Quantities 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.
13. The Contractor shall provide with information related to imported content i.e equipment to be imported, value and applicable exchange rates – separately (Table 2).
14. The total in the Bill of Quantities shall be exclusive of VAT, and shall be transferred to form C1.1 (Form of Offer and Acceptance).

Preview Copy Only

PART C3: SCOPE OF WORKS

Preview Copy Only

PART C3: SCOPE OF WORKS

Preview Copy Only

PART C3
SCOPE OF WORKS

INDEX

Section No	Description
GENERAL	
C3.1	Description of works
C3.2	Engineering
C3.3	Procurement
C3.4	General Construction Aspect
C3.5	Management of the Works
C3.6	Environmental Requirements
PARTICULAR SPECIFICATION	
C3.7	Outdoor Works

PART C3

Section 1

DESCRIPTION OF THE WORK

Item	Description	INDEX	Page
1.1	Employer's Objective.....		2
1.2	Overview of the Works		2
1.3	Extent of the Works		2
1.4	Location of the Works		2
1.5	Temporary Works		2

PART C3

Section 1

DESCRIPTION OF THE WORKS

1.1 Employer's Objective

- 1.1.1 The objective of the employer is to replace primary oil circuit breakers with primary gas circuit breakers in all the mentioned substations and to reduce failures in order to achieve predictable service.

1.2 Overview of the Works

- 1.2.1 Producing the equipment layout design for the Transnet Freight Rail substation portion. The design, supply, installation and commissioning of new equipment for the mentioned substations.

The existing old equipment will be disconnected, removed and transported to the Depot by the Contractor.

1.3 Extent of the Works

- 1.3.1 The Contractor shall do the work as detailed in the particular specifications BBF1389 version 1.

1.4 Location of the Works

- 1.4.1 The mentioned substations are from Witbank, Bloemfontein and Koedespoort depots.

Depots with substation names

Witbank	Bloemfontein	Koedespoort
1. Bronkhorstpruit	1. Theron	1. Paul
2. Crown Douglas	2. Oosthuizen	2. Tussenin
3. Witbank	3. Estoire	3. Arthursview
4. Uitkyk		
5. Derwent		
6. Arnot		
7. Sunbary		
8. Dalmanutha		
9. Nittens		
10. Kleindam		
11. Wapadskloof		
12. Sterkloop		
13. Stoffberg		
14. Erts		
15. Laersdrift		
16. Hanmien		
17. Roosenekal		

1.5 Temporary Work

Not Applicable

Part C3

Section 2

ENGINEERING

		INDEX	
Item	Description		Page
2.1	Design services and activity matrix		2
2.2	Employer's design.....		2
2.3	Design brief.....		2
2.4	Drawings.....		2
2.5	Design procedures.....		3

PART C3

Section 2

ENGINEERING

2.1 Design services and activity matrix

Design and related documentation

Activity	Responsibility
Design and construction drawings (includes general layouts, cable routes, schematic diagrams, foundations, support steelwork etc). The Contractor's drawings shall also show the interface between the new wiring and the existing panel.	Contractor
As Built drawings (electrical and mechanical, for substation equipment).	Contractor
Itemised catalogue of parts.	Contractor
Preparation of instruction manuals.	Contractor

2.2 Employer's design

2.2.1 Not applicable.

2.3 Design brief

2.3.1 The GCB mechanism box shall be at a height suitable for operation by a person of average height standing at ground level.

2.3.2 The design shall maintain the following clearance, as per specification BBB1267:

Transmission System (kV)	Safe Clearance (m)
132	1.45

2.3.3 If the Gas circuit breaker design does not provide for the clearance stated in 2.3.1 above, a barrier built into the roof of the circuit breaker operating mechanism box shall be provided and installed by the Contractor.

2.3.4 The Contractor shall note that the equipment to be replaced is based on an existing installation, therefore the new equipment design shall cater for the interface with the existing equipment. The new equipment to be supplied by the Contractor shall be fitted within the space left by the removed (old) equipment.

- 2.3.5 The Contractor's design for the concrete foundations and structural steelwork shall be certified by a Professional Engineer or Technologist registered with the Engineering Council of South Africa (ECSA) in the relevant disciplines.
- 2.3.6 The Contractor shall design and wire a circuitry that will inhibit the local (on GCB mechanism box) closing of the circuit breaker that is on lock-out.

2.4 DRAWINGS

2.4.1 The requirements for drawings to be provided by the Contractor shall be in accordance with the requirements of specification CEE0224.2002.

2.4.1.1 The quantities are reflected in Bill of Quantities.

2.4.2 The following drawings are to be issued by Transnet Freight Rail:

- | | |
|--------------------------|---|
| 1. CEE-TBK-27 | Control circuit diagram. No volt coil protection. |
| 2. CEE-TBK-28 | Trip, lockout and indication circuit – SF6 primary circuit breaker – traction subs. |
| 3. CEE-TBB-94 Sht 2,9&10 | Control and circuit diagrams 3kV DC traction substations. |
| 4. BBB3620 | 3kV DC earthing arrangement traction substations. |
| 5. CEE-TBD-8 | Earthing arrangement on 25Kv AC substation. |

2.4.1 Drawing Procedures

2.4.1.1 All as built drawings shall be supplied in electronic format (Microstation/Acad).

2.4.1.2 The successful Contractor shall be required to submit all drawings (paper prints), within four weeks of award of tender, to the Project Manager or Supervisor for approval. No construction or manufacturing activity will be allowed prior to the associated drawings having been approved.

2.4.1.3 During the duration of the contract period, the successful Contractor will be required to inform the Project Manager or Supervisor of any changes to these drawings and will have to submit the affected drawings for approval prior to it being used on this contract.

2.4.1.4 All drawings, catalogues, instruction book and spares lists shall be in accordance with Transnet Freight Rail's specification CEE.0224.2002.

2.4.1.5 All final as built drawings shall be provided to Transnet Freight Rail within four weeks after commissioning.

2.4.1.6 Supply three sets of A3 schematic wiring diagrams in hard copy format and electronic format for approval.

2.4.1.7 All affected PCB control schematic drawings to be updated.

2.5 Design procedures

- 2.5.1 Transnet Freight Rail requires drawings, catalogues, instruction manuals and spares list for electrical equipment supplied as per specification no. CEE.0224 Issue 2002 and it's Appendix - 'Schedule of Requirements'
- 2.5.2 The Contractor shall supply the following drawings:
- 2.5.2.1 Two prints each of design drawings for approval by Transnet Freight Rail Contract Supervisor, prior to the commencement of work or manufacture of any equipment. This includes equipment layouts showing important dimensions and clearances, foundation designs, support steelwork designs and proposed circuits.
- 2.5.2.2 One copy of each of these must be available at the commissioning and handing over of equipment.
- 2.5.3 The term "approved" as used in the various specifications, means that the items so specified, or a fully detailed specification thereof, shall be submitted to the Transnet Freight Rail Contract Supervisor for his approval before such items are ordered or installed.

Part C3

Section 3

PROCUREMENT

Item	Description	INDEX	Page
3.1	Subcontracting.....		2

Preview Copy Only

PART C3

Section 3

PROCUREMENT

3.1 Subcontracting

- 3.1.1 Tenders are required to provide a list of work, which they intend carrying out on a subcontract basis, and that which they intend carrying out with own permanent employees.
- 3.1.2 Tenders shall outline their policy with regard to the employment of local “previously marginalized” subcontractors, and the estimated proportion of the work in the various trades that will be sublet to such subcontractors.
- 3.1.3 The successful Tenderer will be responsible for the supervision and quality control of the work undertaken by the subcontractors.
- 3.1.4 The successful Tenderer shall not take advantage of the lack of pricing skills of emerging subcontractors, and obvious errors in pricing shall be pointed out and rectified to reflect the reasonable prices for the work.
- 3.1.5 Any subcontractors in which the main Contractor considers using shall be submitted to Transnet Freight Rail for approval.

Part C3

Section 4

GENERAL CONSTRUCTION ASPECTS

Item	Description	INDEX	Page
4.1	Works Specifications.....		2
4.2	Plant and Material		3
4.3	Construction Equipment.....		3
4.4	Existing Services		3
4.5	Site Establishment.....		3
4.6	Site Usage		4
4.7	Permits and Wayleaves		5
4.8	Alterations, additions, extensions, and modifications to existing works.....		5
4.9	Inspections of adjoining properties.....		5
4.10	Water for construction purposes.....		5
4.11	Survey control and setting out the Works.....		5

PART C3

Section 4

GENERAL CONSTRUCTION ASPECTS

4.1 Works Specifications

4.1.1 Particular Specifications:

Specification BBF1389 VER 1: Replacement of Primary Circuit Breakers.

4.1.2 Generic Specifications:

Specification BBB 5452 Version 5 Installation Specification

Specification BBB 1267 Version 10 Outdoor high voltage alternating current circuit breaker for traction and distribution substation.

Specification CEE.0045.2002/1: Painting of steel components of electrical equipment.

Specification CEE.0023.90 Installation of cables

Specification CEE.0224.2002: Drawings, catalogues, instruction manuals and spares lists for electrical equipment supplied under contract

Specification BBC0198 version 1: Requirements for the supply of electric cables.

Specification BBB2721 version 10: AC primary circuit breaker control panel for 3kV DC traction substations.

Specification BBB3059 version 2: 3kV DC traction substation earthing system for high voltage outdoor yards.

Specification S420.1999: Specification for concrete work.

Specification E4B: Temporary facilities for on-site accommodation.

Specification S417: Transnet Vegetation Standard.

Specification BBB2007: Environmental Guidelines and Specifications for Electrical Construction Work.

Specification BBD8210: Works on, over, under or adjacent to railway lines and near high voltage equipment.

Specification CEE.0111.99: 25kV AC Traction Substation.

Specification BBC 7616: Policy and Guidelines for Management of Polychlorinated Biphenyls (PCB) in Transnet Freight Rail.

Applicable specifications referred to as secondary specifications

4.1.3 Standard specifications:

Specifications listed in clause 2.1 of BBB 5452 Version 2.

SANS 1200A General
SANS 1200C Site clearance
SANS 10142 –1 Wiring code

Applicable specifications referred to as secondary specifications

4.2 Plant and Material

- 4.2.1 All material and components used shall be Transnet Freight Rail approved.
- 4.2.2 The Contractor shall provide written certification of compliance with specification of materials supplied by him.
- 4.2.4 During construction, the Contractor shall be responsible for securing equipment, plant and material, up to handover to Transnet Freight Rail.

4.3 Construction Equipment

- 4.3.1 The Contractor shall supply all equipment necessary to perform the work.

4.4 Existing Services

- 4.4.1 The Contractor shall be responsible for locating and protecting existing services. The position of existing services (if) shown on the drawings are only approximate. Services other than that shown on the drawings may be pointed out to the Contractor by the Transnet Freight Rail Contract Supervisor and the Contractor shall take responsibility to protect them in the same way as those shown on the drawings. Damage to any service shown on the drawings or pointed out to the Contractor shall immediately be reported to the Transnet Freight Rail Contract Supervisor who will arrange for its repair.
- 4.4.2 The Contractor shall reinstate the services and structures damaged during construction.
- 4.4.3 Any damages caused by the Contractor to Transnet property and services shall be rectified by the Contractor at his own costs and to the full satisfaction of the Supervisor.
- 4.4.4 Permission to connect to any existing Transnet Freight Rail service, on a temporary basis, must be obtained from the Transnet Freight Rail Contract Supervisor.

4.5 Site Establishment

- 4.5.1 Provision has been made in the Schedule of Quantities and Prices for a predetermined lump sum establishment charge which shall be deemed to provide for the costs of establishing the Contractor, his staff, office accommodation, equipment and materials on the site of the works and for the cost of establishing and maintaining living accommodation and sanitary facilities and services for his staff and labourers in accordance with the requirements of the conditions of contract.
- 4.5.2 The payment of the establishment charge will be made as follows:
 - 4.5.2.1 Thirty percent (30%) of the lump sum will be paid to the Contractor when the Transnet Freight Rail Contract Supervisor is satisfied that the Contractor has provided adequate office accommodation, equipment, staff and materials on the site to proceed with the work in terms of the approved works programme and has provided such living accommodation, sanitary facilities and services as are required in terms of the conditions of contract.

4.5.2.2 For the provision of such extra facilities as may be required during the duration of the contract and for the maintenance of all accommodation, sanitary facilities and services in terms of the contract conditions the Contractor shall be paid the balance of the lump sum as follows:-

- (i) A monthly amount shall be calculated by dividing the balance of the establishment charge by the number of full months from the date of payment under subclause 4.5.2.1 hereof to the due date of completion of the contract as awarded.
- (ii) This amount shall be paid monthly up to the original completion date provided that all accommodation, sanitary facilities and services have been satisfactorily maintained in terms of the contract conditions during the month concerned and the Transnet Freight Rail Contract Supervisor has issued a certificate to that effect.
- (iii) In the event that accommodation, sanitary facilities and services have not been maintained satisfactorily in terms of the contract conditions during any of the months referred to in subclause 4.5.2.2 (ii) above, the calculated monthly amount in respect of that particular month shall not be paid and the total contract value shall be reduced accordingly.

4.5.2.3 Any establishment charge claimed by Contractors shall form part of the Contractor's fixed or inosculated cost in the price adjustment formula. The establishment charges will be taken into consideration when the financial evaluation is undertaken prior to acceptance of the tender.

4.6 Site Usage

4.6.1 The establishment of a site is the responsibility of the successful tenderer and this must be provided for in the quotation. Fixed assets such as fencing, carports etc. shall be removed or demolished after completion of the Works.

4.6.2 The Contractor shall provide an office for the Transnet Freight Rail Contract Supervisor on site upon request.

4.6.3 Housing of Contractor's staff on any Transnet property will not be permitted.

4.6.4 The Contractor shall supply portable toilets for the use of his workmen.

4.6.5 The Contractor is to make his own arrangements for the distribution of electrical power for his own use on the site. Transnet Freight Rail will not be responsible for any claims whatsoever brought about by any disruption or fluctuations in the supply of any such electrical power to the Contractor.

4.6.6 The Contractor shall lay his own temporary water reticulation and make the necessary connection to an existing water main and metering device, if available.

4.6.7 The Contractor is to apply to the network provider for a telephone if required.

4.6.8 Cost for water, electricity and telephone will be to the account of the Contractor.

4.6.9 Contractor's own and supervised site store

4.6.9.1 The Contractor must provide adequate storage, at his own expense to the satisfaction of the Transnet Freight Rail Contract Supervisor. All material must, in addition, be stored or stacked in position that will not interfere with other work in progress in the area.

4.6.9.2 Sites for storage facilities on property of Transnet Freight Rail, if available, must be arranged in conjunction with the parties concerned. Where no sites are available, the Contractor must make his own arrangements at his expense.

4.6.9.3 The Transnet Freight Rail Contract Supervisor shall be advised as early as possible where storage sites will be located.

4.6.9.4 The cost of this store shall be shown separately as an item in the quotation for installation.

4.6.9.5 On completion of the contract, the Contractor shall dismantle and remove the store entirely from the property of Transnet Freight Rail.

4.6.9.6 Off-loading, storage and distribution

4.6.9.6.1 The Contractor shall be responsible for off-loading all material, the storage and safe custody thereof and for the distribution on the Works.

4.6.9.6.2 The Contractor shall maintain records, to the satisfaction of the Transnet Freight Rail Contract Supervisor, concerning the receipt and issue of all material.

4.6.9.6.3 All material must be stored or stacked in positions that will not interfere with other work in progress in the area.

4.6.10 The Contractor shall, on completion of the Works, clear the site of all leftover items of material, such as empty cable drums, cable off-cuts, empty tins, etc., to the satisfaction of the Transnet Freight Rail Contract Supervisor. Off-cuts of all material of a valuable nature which is the property of Transnet, such as copper or aluminium wire or cable, shall be returned to a site to be directed by Transnet Freight Rail Contract Supervisor.

4.7 Permits and Wayleaves

4.7.1 The contractor shall be responsible for any water permits (for bulk water extraction) or borrow pit licences, if necessary.

4.8 Alterations, additions, extensions, and modifications to existing works

4.8.1 Contractor shall use the given drawings in all the substations as a guideline or proposal by Transnet Freight Rail, and should the Contractor deem it necessary/appropriate to deviate from the above, he shall inform the Project Manager/Transnet Freight Rail Contract Supervisor for approval.

4.8.2 Only Transnet Freight Rail Contract Supervisor or his appointed designate shall be allowed to enter Site Instructions. Any instruction that might result in a change in scope or has cost implications, shall only be carried out once a Variation Order (VO) has been approved by Transnet Freight Rail, otherwise the client may refuse to pay for such work.

4.9 Inspections of adjoining properties

4.9.1 Inspections shall be done in accordance with Environmental Management Guidelines.

4.10 Water for construction purposes

4.10.1 The Contractor shall provide water for construction purposes.

4.11 Survey control and setting out the Works

Not Applicable

Part C3

Section 5

MANAGEMENT OF THE WORKS

Item	Description	INDEX	Page
5.1	SANS 1921 Standards.....		2
5.2	Particular/generic specification		2
5.3	Planning and programming.....		2
5.4	Sequence of the works.....		2
5.5	Software application for programming		2
5.6	Methods and procedures		2
5.7	Quality plans and control.....		2
5.8	Environment		3
5.9	Accommodation of traffic on public roads occupied by the Contractor		3
5.10	Other Contractors on Site		4
5.11	Testing, Completion, Commissioning and Correction of Defects		4
5.12	Recording of Weather.....		4
5.13	Format of Communication.....		4
5.14	Key Personnel		5
5.15	Management meetings		5
5.16	Forms for Contract Administration.....		5
5.17	Daily records.....		5
5.18	Bonds and guarantees		5
5.19	Payment Certificates.....		6
5.20	Permits		6
5.21	Insurance provided by the Employer		6
5.22	Health and Safety Requirements and Procedures.....		6

PART C3

Section 5

MANAGEMENT OF THE WORKS

5.1 SANS 1921 Standards

The following parts of SANS 1921 and associated specification data are applicable:-

SANS 1921-1-2004: Part 1: General Engineering and Construction Work.

SANS 1921-2-2004: Part 2: Accommodation of traffic on public roads occupied by the Contractor.

5.1.3 SANS 1921-3-2004: Part 3: Structural steelwork.

SANS 1921-6-2004: Part 6: HIV/AIDS awareness.

5.2 Particular/generic specification

5.2.1 Refer to Section 4.1.2

5.3 Planning and programming

5.3.1 The tenderer shall submit in his tender a detailed programme of work, including all stages and clearly indicating milestones and how he intends to complete the work within the given completion period. Anticipated deliveries of batches of material shall be included.

5.3.2 The work shall be planned and executed in such a way that there won't be delays of one Contractor that are attributable to any other Contractor or subcontractor appointed for this project i.e. coordination of plans shall be ensued and maintained at all times, as necessary.

5.4 Sequence of the works

5.4.1 Planned sequence of works should be such that no other parties are delayed.

5.4.2 Under no any circumstances shall two adjacent substations be switched off or worked on at the same time by the Contractor.

5.5 Software application for programming

Manuals and training for programmable components to be provided for.

Electronic documentation to be as per specification CEE.0224.

5.6 Methods and procedures

5.6.1 Hours of work will be Transnet Freight Rail normal working hours 8:00 to 15:00 Monday to Friday.

5.6.2 On the Contractor's request, work may be performed outside these hours if permitted by the Supervisor.

5.6.3 The cost of supervision by Transnet Freight Rail outside normal working hours, if required, will be recovered from the Contractor.

5.7 Quality plans and control

The Contractor shall submit with his tender his proposed QC plan and procedures. This plan shall indicate how the necessary quality assurance and control will be carried out in order to meet the requirements of the contract documents.

- 5.7.2 The plan shall consist of checklists and measurements sheets to be completed by the Contractor in order to substantiate that the complete work conforms to the specifications with respect to material, quantity, dimensions, methods and other requirements.
- 5.7.3 The entire plan for the contract shall be controlled for comprehensiveness by means of a form referring to the various checklists and measurement sheets.
- 5.7.4 The Contractor may use his own checklists and forms or may use standard forms supplied by the Supervisor. The Contractor shall have his Quality Control plan approved by Supervisor prior to the start of any work or ordering of material.
- 5.7.5 The Contractor shall notify the Supervisor of all inspections at least 14 working days in advance of such inspections. The Contractor shall have the relevant quality control check sheets available at inspections and tests.
- 5.7.6 Transnet Freight Rail reserves the right to inspect the equipment in this Contract at any stage during manufacture and to be represented at any tests.
- 5.7.7 Where the contract provides for tests on the premises of the Contractor or of his subcontractor or on site, the Contractor shall provide assistance such as labour, materials, electricity, fuel, stores, apparatus and instruments as may be a requisite and as may be reasonably demanded to carry out such tests efficiently.
- 5.7.8 As and when the equipment has passed these tests, the Supervisor shall furnish the Contractor with a certificate in writing to this effect.
- 5.7.9 If as a result of an inspection, examination or test, the Transnet Freight Rail Contract Supervisor decides that the equipment is defective or not in accordance with the requirements, he shall notify the Contractor accordingly stating in writing his objections and reasons thereof. The Contractor shall timeously make good the defect to ensure that the equipment complies with the requirements.
- 5.7.10 Thereafter, if required by the Transnet Freight Rail Contract Supervisor, the tests shall be repeated under the same terms and conditions save that all reasonable expenses to which Transnet Freight Rail may be put by the repetition of these tests will be deducted from the contract sum.
- 5.7.11 Unless the Transnet Freight Rail Contract Supervisor otherwise directs, no equipment or materials are to be delivered to site until the Transnet Freight Rail Contract Supervisor issues an inspection certificate in respect of such equipment or material. The Contractor shall be responsible for the reception of all equipment and material delivered to site for the purpose of the contract.
- 5.7.12 Transnet Freight Rail reserves the right to conduct a quality assurance audit on the Contractor's quality control system at regular intervals.
- 5.7.13 If at any stage during manufacture, installation or commissioning of equipment or material it becomes evident that the requirements of applicable specifications are not being adhered to, Transnet Freight Rail reserves the right to halt such manufacture, installation or commissioning until such time as the Contractor or his subcontractor conforms to the requirements of this specification.
- 5.7.14 Details of any additional tests or inspections proposed by the Tenderer shall be attached and submitted with his tender.

5.8 Environment

- 5.8.1 Refer to section 6

5.9 Accommodation of traffic on public roads occupied by the Contractor

- 5.9.1 Not Applicable

5.10 Other Contractors on Site

- 5.10.1 Planning and sequencing to comply with requirements in 5.3, 5.4 and 5.6.
Should a Contractor be obstructed in anyway by other Contractors' activities, he shall notify the Project Manager or Supervisor within twenty-four hours, failing which he may be held responsible for any delays resulting there from.

5.11 Testing, Completion, Commissioning and Correction of Defects

- 5.11.1 When, in the opinion of the Supervisor, any part of the work done or any items of material used is not in accordance with the requirements of the Contract, whether or not payment for such work or material has been made, he may order the Contractor in writing to remove any objectionable part, item or component thereof, to replace it with an acceptable part, item or component and to rectify or reconstruct the Works without cost to Transnet.
- 5.11.2 The Works will not be accepted by Transnet as complete until all defects of every kind have been made good to the satisfaction of the Supervisor.
- 5.11.3 Within a reasonable time after receipt of written instructions from the Project Manager/Supervisor, the Contractor shall make good to the satisfaction of the Supervisor all the defective material and workmanship which are not in accordance with the contract and which may appear within a period of 12 months, or such other period as stipulated in the Contract Data, after the date stated in the CERTIFICATE OF COMPLETION, and shall repair all damage caused thereby.
- 5.11.4 Should the Contractor fail to comply with the above provisions, Transnet may cause the required work to be carried out at the expense of the Contractor and may recover the cost thereof from the Contractor.
- 5.11.5 Testing and commissioning shall be done in accordance with applicable standards, generic and particular specifications.
- 5.11.6 The employer shall perform the final commissioning tests.

5.12 Recording of Weather

- 5.12.1 The requirements are covered in the contract data.

5.13 Format of Communication

- 5.13.1 The Contractor shall supply and have available ON SITE at all times three A4 size triplicate carbon copy books.
- 5.13.2 In one book, site instructions will be recorded. Only the Project Manager and the Supervisor or their delegated representative will have the authority to issue site instructions to the Contractor. Any instruction that might result in a change in scope or has cost implications, shall only be carried out once a Variation Order (VO) has been approved by Transnet Freight Rail, otherwise the client may refuse to pay for such work.
- 5.13.3 The second book will be used as the Risk Register required by the Contract for Engineering and Construction Work, NEC3.
- 5.13.4 The third book will be a site diary. Site diaries shall be forwarded to the Transnet Freight Rail Contract Supervisor during monthly progress meetings. Site activities and information (including weather conditions) shall be entered in a site diary on a daily basis. Amongst others the safety talks shall be entered, and all visitors on site shall sign the Site Diary. Working hours are to be aligned with the Depot working hours, any work to be done outside normal Depot working hours to be discussed with the relevant Depot.
- 5.13.5 The original sheet of each set of three pages will be removed from the books and retained by the Project Manager. The Contractor may remove the second sheet but the third sheet shall be retained on the site until completion of the Works when it shall be handed to the Project Manager.
- 5.13.6 All important communication shall be in writing.

5.14 Key Personnel

- 5.14.1 The Contractor shall provide an Organigram of his key personnel on site, including all relevant contact details within two weeks from the start date.

5.15 Management meetings

- 5.15.1 Risk reduction meetings: These meetings can form part of the regular site meetings or be held as separate meetings. At these meetings the following issues will be discussed:
- (i) Compensation events
 - (ii) Early warnings
 - (iii) Contractual claims
 - (iv) Risk register
- 5.15.2 The Contractor shall attend site meetings when convened by the Transnet Freight Rail Contract Supervisor (normally once a month). Such meetings will be for the purpose of discussing progress, delays, materials, conditions and the co-ordination of site activities. The meetings will be chaired by the Project Manager or his deputy and the proceedings shall be minuted and circulated by the Transnet Freight Rail Contract Supervisor.
- 5.15.3 The Contractor shall attend ad hoc site meetings when convened by the Transnet Freight Rail Contract Supervisor. Such meetings will be for the purpose of discussing specific issues or problems relating to specifications and adherence thereto, quality and contractual matters.
- 5.15.4 Contractor's representatives at these meetings shall have the necessary delegated authority in respect of aspects such as planning, change management, health and safety.

5.16 Forms for Contract Administration

- 5.16.1 The following standard forms will be used for contract administration.
- (i) Progress Assessment Details
 - (ii) Progress Assessment Certificate

5.17 Daily records

- 5.17.1 The Contractor shall supply a triplicate carbon copy book to be used as a site diary for recording day- by-day the state of the weather, the work done each day and full details of any circumstances which may affect the progress of the Works.
- 5.17.2 The original sheet of each set of three pages will be removed from the book and retained by the Project Manager. The Contractor may remove the second sheet but the third sheet shall be retained on the site until completion of the Works when it shall be handed to the Project Manager.
- 5.17.3 Daily diary/record book with a page per day for recording all events effecting the progress of the works such as drawings received on site, arrivals and dispatch of plant, material received or applied for, breakdowns, delays, work done during the day, etc. Entries shall be made by the Contractor or his appointed agent and signed by both parties daily. Those days on which no events take place must be ruled out and "NIL" entered. The site diary will be used as documentary proof to establish the validity of any claims.
- 5.17.4 Site diaries shall be forwarded to the Transnet Freight Rail Contract Supervisor during monthly progress meetings.

5.18 Bonds and guarantees

- 5.18.1 Security in the amount equal to either ten percent or five percent of the contract price, as elected by the Contractor, shall be provided by the Contractor for the due and faithful performance by him in terms of the Contract. Such security shall be in the form of:-
- 5.18.1.1 Government or approved Municipal stocks in negotiable form, or
 - 5.18.1.2 A deed of suretyship furnished by an approved bank, insurance or guarantee corporation in such form as may be prescribed by Transnet, provided however that the Project

Manager may, upon written application by the Contractor, return to the Contractor the whole or part of such security held by Transnet when the retention money has reached an amount which the Project Manager in his sole discretion considers sufficient for the protection of Transnet. Transnet is entitled to hold all or portion of the security until the completion of the contract and expiry of the defects liability and maintenance period.

- 5.18.2 Either five or ten percent of the value of the work completed, as reflected by the nett monthly amounts certified for payment, will be retained by Transnet for the due and proper fulfilment of the contract, until such retention money is sufficient, in the opinion of Project Manager, for the protection of Transnet. Transnet is entitled to hold all or portion of the retention money until the completion of the contract and the expiry of the maintenance period.
- 5.18.3 Retention money shall be 5 percent when the security referred to hereof is 10 percent, and 10 percent when the said security is 5 percent.

5.19 Payment Certificates

- 5.19.1 On or after the assessment date, the Supervisor and the Contractor will together assess the quantities of the progress on each item in the Bill of Quantities and complete the Progress Assessment Detail form, where after the Progress Assessment Certificate will be issued.
- 5.19.2 The Contractor shall then submit a VAT invoice and attach the above Progress Certificate for payment by the Employer.
- 5.19.3 Contractor to provide the Employer with the necessary details regarding banking details to enable the Employer to make electronic payments.

5.20 Permits

- 5.20.1 All employees of the Contractor shall carry at all times the permits issued by the Employer.
- 5.20.2 The Contractor shall manage the permits in such a way that people no longer in his employ should not have these permits in their possession anymore.
- 5.20.3 Employees must in no way be hired at the site.

5.21 Insurance provided by the Employer

- 5.21.1 Details of these are covered in the Contract Data.

5.22 Health and Safety Requirements and Procedures

- 5.22.1 Health and safety requirements are covered in Transnet Specifications E4E (August 2006).
- 5.22.2 The requirements for work adjacent to railway lines are covered in the Transnet Specification BBD8210.

Part C3

Section 6

ENVIRONMENTAL REQUIREMENTS

Item	Description	INDEX	Page
6.1	Scope.....		2
6.2	Supporting Specifications / manuals.....		2
6.3	Requirements for Electrical Construction Work.....		2
6.4	Disposal and Treatment of Oil and Oil Filled Circuit Breakers.....		2

Preview Copy Only

PART C3

Section 6

ENVIRONMENTAL REQUIREMENTS

6.1 Scope

- 6.1.1 This part of particular specification covers the environmental requirements for electrical construction work.
- 6.1.2 It covers the requirements for the handling and disposal of oil and circuit breakers containing Polychlorinated Biphenyls.

6.2 Supporting Specifications / Manuals

- 6.2.1 The following generic specification and manual are applicable:-

Transnet Specification

Specification BBB2007:	Environmental guidelines and specifications for electrical construction work.
Specification E4B:	Temporary facilities for on-site accommodation.
Specification S417:	Transnet Vegetation Standard.
Specification BBC7616:	Policy and guidelines for the management of Polychlorinated Biphenyls (PCB) in Transnet Freight Rail.

Transnet Manual

A Manual and Guidelines for Management of Polychlorinated Biphenyls in Transnet Freight Rail.

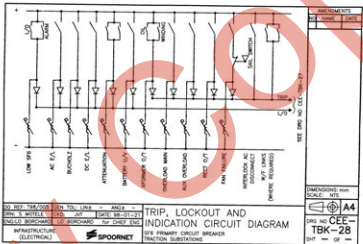
6.3 Requirements for Electrical Construction Work

- 6.3.1 The Contractor shall comply with the requirements of specification BBB2007 during construction work.

6.4 Disposal and Treatment of Oil and Oil Filled Circuit Breakers

- 6.4.1 The collection, handling and disposal of oil from the Oil Circuit Breakers (OCB's) from the substations shall be done in a safe and environmentally sound manner.
- 6.4.2 Unless any equipment to be replaced containing oil is clearly certified Polychlorinated Biphenyls (PCB) free, the contractor shall test or make arrangements for the testing of the circuit breaker oil for PCB's before replacing the OCB's and submit the results to Transnet Freight Rail.
- 6.4.2.1 This will be done by first conducting preliminary screening chlorine tests and where the levels of chlorine presence are above 50ppm, further detailed PCB tests and analyses shall be conducted.

- 6.4.2.2 The units with levels of contamination less than 20ppm Chlorine shall be disposed of following the normal disposal procedure.
- 6.4.2.3 Equipment and oil with a PCB content ranging from 21 to 49 PPM is classified as 'mildly contaminated' and shall be properly identified, i.e. marked with yellow stickers.
- 6.4.2.4 Equipment and oil with a PCB content ranging from 50 to 499 PPM is classified as 'PCB contaminated' and shall be properly identified, i.e. marked with orange stickers.
- 6.4.2.5 Any units with residual PCB pollution, or oils contaminated to a level greater than 500ppm shall be treated as PCB ITEMS and labeled accordingly.
- 6.4.2.6 The above oils shall be disposed of using the approved methods stated in "Transnet specification BBC7616 for Guidelines and Management of Polychlorinated Biphenyls in Transnet Freight Rail".
- 6.4.3 The soil around the circuit breakers that has been polluted as a result of current or past leakage of oil shall be remediated after the Contractor has determined the total petroleum hydrocarbon (tph) levels in it . Remediation of polluted soils not containing PCB's may be conducted in-situ in the case of light contamination (total petroleum hydrocarbon (tph) < 1000 ppm). Alternative methods of bioremediation, landfarming or off-site disposal of such contaminated soils shall be considered and implemented for soil material contaminated to a concentration > 1000 tph.
- 6.4.3.1 All PCB contamination in the ground if encountered and exceeding the 500 ppm limit shall be removed and disposed of in a manner approved by Transnet Freight Rail, in line with the directives for PCB items.
- 6.4.4 In case of PCB items being identified, handling and disposal of the equipment shall be done in accordance with "Transnet specification BBC7616 for Guidelines and Management of Polychlorinated Biphenyls in Transnet Freight Rail".
- 6.4.5 The Contractor shall arrange for a registered Contractor to transport all PCB items to an approved disposal site.
- 6.4.6 Equipment and oil with PCB content above 20ppm shall be handled by a registered contractor. Those below 300ppm shall be dechlorinated, as per guidelines, before disposal.
- 6.4.7 Approved degreasing agents on concrete surfaces shall be used, if required.
- 6.4.8 The costs for the screening chlorine test and analyses of oils and soil for PCB's, the tests and analysis of soil to determine tph levels where spillages have occurred, must be furnished by the tenderers in the Bill of Quantities and Prices, Part C2.
- 6.4.8.1 The Tenderer shall provide a provisional method statement and cost for the legal disposal of PCB items, such methodology and costing becoming applicable only in the event of PCB items requiring disposal, as specified.
- 6.4.9 The Contractor shall supply 210 litre drums for the transportation of oil.
- 6.4.10 The old circuit breakers that are not contaminated shall be transported by the Contractor to the main respective depot and scrapped by Transnet Freight Rail following normal procedures. (The depots may keep old OCB parts as spare parts if deemed necessary).



Δ 3

Δ

Δ 4

Δ 4

Δ

Δ 3