



TRANSNET FREIGHT RAIL
ENQUIRY NUMBER: BFX/54035

DESCRIPTION OF THE WORKS: FOR THE SUPPLY, INSTALL, TEST AND COMMISSIONING OF SF6 GAS FILLED OUTDOOR
PRIMARY CIRCUIT BREAKERS AT LEEUSTROOM 3KV DC TRACTION SUBSTATION

T1.1 Tender Notice and Invitation to Tender

Transnet SOC Ltd invites tenders for Transnet Freight Rail, Real Estate Management, Kimberley
Refurbishment of transformers, transformer oil sampling, regeneration of oil and oil purification.

Tenderers should have a CIDB contractor grading designation of 2 EP or higher.

The physical address for collection of tender documents is Transnet Freight Rail, Supply Chain Services, Real Estate Management Building, Room 1, Austen Street, Beaconsfield in Kimberley. A non-refundable tender fee of **R250.00 (inclusive of Vat) is applicable per tender. Payment is to be made to Transnet Freight Rail, Standard Bank Account number 203158598, Branch code 004805.** The deposit slip must reflect **RFQ: BFX/54035** and the contractor's company name. Proof of payment presented prior to the collection of the tender.

If Bidders intend to download the RFQ document from Transnet Freight Rail Portal at <http://www.transnetfreightrail-tfr.net/Supplier/Pages/Tenders.aspx> only the download RFQ document is issued free of charge. After the document has been downloaded, bidders are required to send their **contact details to the following address: kobie.nelson@transnet.net by 22 November 2016 before 15H00. This is to ensure that any required communication (e.g. addenda to the RFQ) in relation to this RFQ reaches those intending to respond.**

For enquiries regarding collection of documents, contact Ms Kobie Nelson (053) 838 3364

A **compulsory clarification** meeting with representatives of the Employer will take place at Ultra City in Kroonstad on 23 November 2016 starting at 10H00 hrs. All bidders attending the site meeting must have their printed RFQ document with them before the meeting starts. **Bidders who do not have their printed document will be excluded from the meeting, as well as their bids disqualified.**

The closing time for receipt of tenders is 10H00 hrs. On 06 December 2016. In the tender box and **late tenders will not be accepted.**

Tenders may only be submitted on the tender documentation that is issued.

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

Transnet urges Clients, Suppliers and Service Providers to report any acts of fraud and/or instances of corruption to Transnet's TIP-OFFS ANONYMOUS on 0800 003 056 or Transnet@tip-offs.com.



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**ACKNOWLEDGMENT OF RECEIPT OF DOCUMENTS
AND INTENTION TO TENDER**

(To be returned within 3 days after receipt)

FAX TO: Transnet Freight Rail

Fax No. (053) 838 3007

Tender

No.: BFX/54035.

Attention: Kobie Nelson

Closing

Date: 06 December 2016

For: Refurbishment of transformers, transformer oil sampling, regeneration of oil and oil purification.

We: **Do wish to tender** for the work and shall return our tender by the due date above **Check Yes**
Do not wish to tender on this occasion and herewith return all your documents received **No**

REASON FOR NOT TENDERING:

COMPANY'S NAME, ADDRESS, CONTACT, PHONE AND TELEFAX NUMBERS

SIGNATURE: _____

TITLE: _____



NEC3 Engineering and Construction Short Contract (ECSC)

entered into by and between

Transnet SOC Ltd

Registration Number 1990/000900/06

(hereinafter referred to as the "*Employer*")

and

Pending

Registration Number:

(hereinafter referred to as the "*Contractor*")

Contract Number	BFX/54035
Start Date	To be advised
Completion Date	To be advised

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CONTRACT DOCUMENTS

Form of Offer and Acceptance

Contract Data

Part One – Data provided by the *Employer*

Part Two – Data provided by the *Contractor*

Conditions of Contract (3rd edition – available separately)

Pricing Data

Works Information

Site Information

Appendices

T1.1 Tender Notice and Invitation to Tender

Transnet SOC Ltd invites tenders for Transnet Freight Rail, REM, Kimberley

For the supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustroom 3kV DC traction substation.

Tenderers should have a CIDB contractor grading designation of 2EP or higher.

The physical address for collection of tender is Transnet Freight Rail, Supply Chain Services, Real Estate Management Building, Room1, Austen Street, Beaconsfield, Kimberley

Documents may be collected during working hours after 07 November 2016, Office Hours 07H30 – 15H00.

Queries relating to the issue of these documents may be addressed to

Mr/Ms Kobie Nelson
Tel No 053-838 3364
Fax No. 053-838 3007
Email Kobie.nelson@transnet.net

A compulsory clarification meeting with representatives of the Employer will take place at Ultra City Garage, Kroonstad on 23 November 2016 starting at 10H00 hrs.

The closing time for receipt of tenders is 10H00 hrs on 06 December 2016. In the tender box and late tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

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

Transnet urges Clients, Suppliers and Service Providers to report any acts of fraud and/or instances of corruption to Transnet's TIP-OFFS ANONYMOUS on 0800 003 056 or Transnet@tip-offs.com.

**ACKNOWLEDGMENT OF RECEIPT OF DOCUMENTS
AND INTENTION TO TENDER**

(To be returned within 3 days after receipt)

FAX TO: Transnet Freight Rail	Tender	BFX/54035
	No.:	
Fax No. (053) 838 3007		
Attention: Kobie Nelson	Closing	06 December 2016.
	Date:	

For: DESCRIPTION OF THE WORKS: For the supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustrroom 3kV DC traction substation.

We: Do wish to tender for the work and shall return our tender by the due date above	Check
Do not wish to tender on this occasion and herewith return all your documents received	Yes <input type="checkbox"/>
	No <input type="checkbox"/>

REASON FOR NOT TENDERING:

COMPANY'S NAME, ADDRESS, CONTACT, PHONE AND TELEFAX NUMBERS

SIGNATURE: _____

TITLE: _____

F.2.1 Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:

1. Tender offers will only be considered if:
 - a) An authorised representative of the tendering entity attends the compulsory clarification meeting in terms F.2.7 below (if applicable)
2. Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 2EP or higher class of construction work, are eligible to have their tenders evaluated.

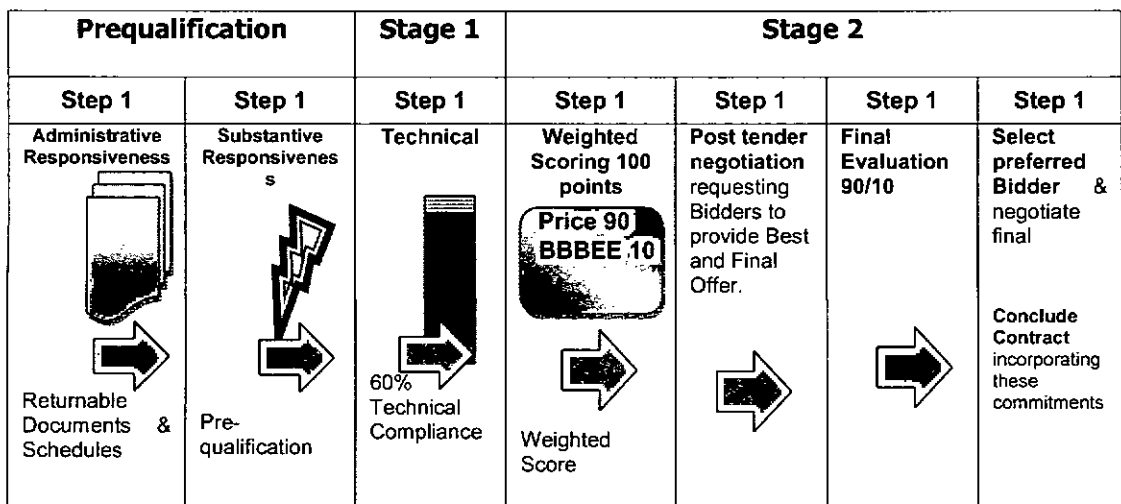
Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation in the 2EP or higher 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 2EP or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

3. Pre-Qualifying Quality (Functionality) Criteria

Only those tenderers who attain the minimum number of evaluation points for Quality (functionality) will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from further consideration

3.1 Steps in Evaluation Methodology



The pre-qualifying Quality (functionality) criteria and maximum score in respect of each of the criteria are as follows:

Pre-qualifying Quality criteria	Sub-Criteria	Weight	Maximum number of points
Company's Previous Experience (T2.2-25)		20	20
Relevance of experience (Years of Experience project Specific) – (comparable/similar projects).			
No Experience	0		
'> 1 Month to 1 Year's Experience	8		
1 to 2 Year's Experience	10		
2 to 3 Year's Experience	13		
'> 3 Year's Experience	20		
Management Arrangements and CV's of key persons (T2.2-7)		10	10
Organogram of Company	4		
General Experience and qualifications	4		
Adequacy for the assignment	1		
Knowledge of local issues pertinent to the project	1		
Quality Plan (T2.2-20)		10	10
General Practice & Procedures indicating clear understanding of intention to comply with legislation & meet Employer's requirements.	2		
Outline of procedures in relation to project specific challenges	3		
Resource allocation (people, costs)	5		
Health & Safety Plan (T2.2-22)		20	20
Safety File Index	4		
Safety Work method Statement and Risk Assessment	2		
Valid Letter of Good Standing (Labour, Insurance, SARS)	2		
SHE Management System	2		
Overview of RA process and examples	2		
Six months synopsis of SHE incidents, description, type and action taken.	2		
Safe Working Procedure for Hand Tools and Equipment	6		

Material Lead Time (T2.2-26)		40	40
Less than 3 weeks	40		
Lead time 3-6 weeks	10		
Lead time more than 3-6 weeks	0		
Maximum possible score for pre-qualifying Quality			100

Pre-qualifying Quality shall be scored by not less than three evaluators and averaged in accordance with the following schedules: *(List applicable evaluation schedules and include such schedules in the returnable schedules)*

- T2.2-7 Management and CV's of Key Persons
- T2.2-20 Quality Plan
- T2.2-22 Health and Safety Plan
- T2.2-25 Previous Experience

The minimum number of evaluation points for quality is : 60

The persons named in the Schedule of Key Persons of tenderers who satisfy the minimum quality criteria may be invited to an interview. Tenderers who attain a score of less than 50% of the points allocated to the interview will be declared ineligible to tender.

Each evaluation criteria will be assessed in terms of Five indicators – no response, poor, satisfactory, good and very good. Scores of 0, 40, 70, 90 or 100 will be allocated to no response, poor, satisfactory, good and very good, respectively. The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for quality, unless scored collectively. (See CIDB Inform Practice Note #9)

Note: Any tender not complying with all three of the above mentioned stipulations, numbered 1 to 3, will be regarded as non-responsive and will therefore not be considered for further evaluation

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

Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

F2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.12 No alternative tender offers will be considered.

F.2.13.3 Parts of each tender offer communicated on paper shall be as an original.

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

Location of tender box: Office No 2

Physical address: Transnet SOC Limited
Secretariat of the Acquisition Council, Admin support Office
Office No 2
Real Estate Management Building
Austen Street, Beaconsfield
Kimberley
8300

F.2.15.1 Identification details: The tender documents must be submitted in a sealed envelope labelled with:

- Name of Tenderer
- Contact person and details
- The Tender number: **BFX/54035**
- The Tender Description: Supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustrroom 3kV DC traction substation.

Documents must be marked for the attention of:
Christopher Williams

Prior arrangement on the submittal of large tender documents should be made with the Procurement Manager.

NO LATE TENDERS WILL BE ACCEPTED

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

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

F.2.16 The tender offer validity period is 12 weeks

F.2.18 Provide, on request by the *Employer*, any other material information that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the *Employer* for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the *Employer's* request, the *Employer* may regard the tender offer as non-responsive.

F.2.20 If requested, submit for the *Employer's* acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the Contract Data. (The format is included in Part T2.2 of this procurement document).

F.2.22 Return all retained tender documents within 28 days after the expiry of the validity period

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

1. a valid **original** Tax Clearance Certificate issued by the South African Revenue Services;
2. A valid certified SANAS accredited or IRBA approved B-BBEE verification certificate, and
3. A completed Supplier Declaration Form (Stamped and signed by the commissioner of

oaths)

4. Letter of Good Standing
5. Proof of CSD Registration.

Note: Refer to Section T2.1 for List of Returnable Documents

F.3.4 The time and location for opening of the tender offers are:
Time 10:15 on Tuesday, 06 December, 2016

Location: Ground Floor, Boardroom, Real Estate Management, Austen Street, Beaconsfield, Kimberley

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

F.3.11.7 The financial offer will be scored using Formula 2 (option 1) in Table F.1 where the value of W_1 is:

80 where the financial value inclusive of VAT of one or more responsive tender offers have a value that equals or is less than R 1,000 000

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

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

Note:

In the event that, in the application of the 80/20 preference point system as stipulated, **all** tenders received exceed the estimated Rand value of R1 000 000, the tender invitation must be cancelled

F.3.13 Tender offers will only be accepted if:

- a) the tenderer submits **an original valid** Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;
- b) the tenderer submits a letter of intent from an insurer undertaking to provide the Performance Bond to the format included in Part T2.2 of this procurement document
- c) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
- d) the tenderer or any of its directors/shareholders 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;
- e) the tenderer does not appear on Transnet list for restricted tenderers.
- f) the tenderer 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 and persons in the employ of the state are permitted to submit tenders or participate in the

contract;

- g) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
- h) the Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.

F.3.17 The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

T1.3 CIDB Standard Conditions of Tender

January 2009 Edition



As published in Annexure F of the CIDB Standard for Uniformity in Construction Procurement in Board Notice 12 of 2009 in Government Gazette No 31823 of 30 January 2009

F.1 General

F.1.1 Actions

F.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
- 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

F.1.3 Interpretation

F.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) **conflict of interest** means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.

b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis

c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and

d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels

e) **organisation** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body

f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs

F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

F.1.5 The employer's right to accept or reject any tender offer

F.1.5.1 The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

F.1.6 Procurement procedures

F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

F.1.6.2.4 The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

F.1.6.3 Proposal procedure using the two stage-system**F.1.6.3.1 Option 1**

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

F.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

F.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

F.2 Tenderer's obligations**F.2.1 Eligibility**

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer or any of his principals, is not under any restriction to do business with employer.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

F.2.2 Cost of tendering

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with Instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

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

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

F.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened,(unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2 Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 Test for responsiveness

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

F.3.8.3 Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 Arithmetical errors, omissions and discrepancies

- F.3.9.1** Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
- F.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:
- a) the gross misplacement of the decimal point in any unit rate;
 - b) omissions made in completing the pricing schedule or bills of quantities; or
 - c) arithmetic errors in:
 - i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.
- F.3.9.3** Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.
- F.3.9.4** Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:
- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
 - b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

F.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.3 Methods 2: Financial offer and preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (*TEV*) in accordance with the following formula:

$$TEV = NFO + NP$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

NP is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (*TEV*) in accordance with the following formula:

$$TEV = NFO + NQ$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

NQ is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to

F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.

- b) Calculate the total number of tender evaluation points (*TEV*) in accordance with the following formula, unless otherwise stated in the Tender Data:

$$TEV = NFO + NP + NQ$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

NP is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

NQ is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$NFO = W1 \times A$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer.

W1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{P - P_m}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 + \frac{P - P_m}{P_m})$	$A = P_m / P$

^a *P_m* is the comparative offer of the most favourable comparative offer.

P is the comparative offer of the tender offer under consideration.

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring quality

Score each of the criteria and subcriteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W2 \times SO / MS$$

where: *SO* is the score for quality allocated to the submission under consideration;
MS is the maximum possible score for quality in respect of a submission; and
W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data

F.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

T2.1 List of Returnable Documents

1. These schedules are required for eligibility purposes:

T2.2-15 **Eligibility Criteria Schedule:** Certification of attendance at a tender clarification meeting

2. These schedules will be utilised for the evaluation of Functionality Criteria

T2.2-2 Programme
T2.2.7 Management and CV's of Key Persons
T2.2-25 Previous Experience
T2.2-20 Quality Plan

3. Returnable Schedules

T2.2-3 Risk Elements
T2.2-4 Availability of equipment and other resources
T2.2-7 Management and CV's of key persons
T2.2-8 Schedule of proposed Subcontractors/consultants
T2.2-9 Insurance provided by the Contractor
T2.2-14 Authority to submit tender
T2.2-15 Certificate of attendance at tender clarification meeting
T2.2-16 Record of addenda to tender documents
T2.2-17 Compulsory Enterprise Questionnaire
T2.2-20 Quality Plan
T2.2-22 Health and Safety Plan
T2.2-24 Capacity and ability to meet delivery schedule
T2.2-25 Previous experience
T2.2-31 Supplier Code of Conduct
T2.2-34 Supplier Declaration Form
T2.2-36 RFQ Declaration Form
T2.2.43 Breach of Law
T2.2-50 B-BBEE Preference Points claim Form
T2.2-51 Certificate of Acquaintance with Tender Documents

4. **C1.1: Offer portion of Form of Offer & Acceptance**
5. **C1.2: Contract Data Part 2: Data by Contractor**
6. **C2.2: Price List**
7. **C3.1: Works Information**
8. **C4.1: Site Information**

T2.2-7: Management & CV's of Key Persons – ECC¹

Please describe the management arrangements for the *works*.

Submit the following documents as a minimum with your tender document:

1. An organisation chart showing on site and off-site management (including the key people you have identified in the Contract Data Part two and identify the required legal appointments.)
2. CV's for people proposed for all identified posts including Safety Officer and Quality Assurance Representative.
3. Details of the location (and functions) of offices from which the *works* will be managed.
4. Details of the experience of the staff who will be working on the *works* with respect to:
 - Working with the NEC3 Engineering and Construction Contract Option chosen for this contract. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.
5. An explanation of how you propose to allocate adequate resources to enable you to comply with the requirements and prohibitions imposed on you by or under the statutory provisions relating to health and safety.

Attached submissions to this schedule:

.....

.....

.....

.....

.....

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

¹NEC3 Engineering & Construction Contract (with amendments June 2006 and April 2013)

T2.2-8: Schedule of Proposed Subcontractors

We notify you that it is our intention to employ the following subcontractors / sub consultants for work in this contract.

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

	Name and address of proposed Subcontractor/ Consultant	Nature and extent of work	Previous experience with Subcontractor/ Consultant.	B-BBEEE Level Certificates to be attached	Value of subcontracted Work (excl. 14% Vat)	% Ownership Black Ownership
1.						
2.						
3.						
4.						
5.						
6						

Signed

Date

Name

Position

Tenderer

T2.2-9: Insurance provided by the *Contractor*

Clause 84.1 in NEC3 Engineering & Construction Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

Please provide the following details for insurance which the *Contractor* is still to provide. Notwithstanding this information all costs related to insurance are deemed included in the tenderer's rates and prices.

Insurance against (See clause 84.2 of the ECC)	Name of Insurance Company	Cover	Premium
Loss of or damage to the <i>works</i> , Plant and Materials			
Loss of or damage to Equipment			
Liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract.			
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
(Other)			

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-14: Authority to submit a Tender

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for his category of organisation or alternatively attach a certified copy of a company / organisation document which provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR

A. Certificate for Company

I, _____, chairperson of the board of directors of _____
 _____, hereby confirm that by resolution of the board taken on ____
 _____ (date), Mr/Ms _____, acting in the capacity of _____
 _____, was authorised to sign all documents in connection with this tender offer and any
 contract resulting from it on behalf of the company.

Signed

Date

Name

Position

Chairman of the Board of Directors

B. Certificate for Partnership

We, the undersigned, being the **key partners** in the business trading as _____
 _____ hereby authorise Mr/Ms _____, acting in the capacity of _____
 _____, to sign all documents in connection with the tender offer for Contract _____
 _____ and any contract resulting from it on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and signed by the full number of Partners necessary to commit the Partnership. Attach additional pages if more space is required.

C. Certificate for Joint Venture

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

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the
 partners to the Joint Venture.

Furthermore we attach to this Schedule a copy of the joint venture agreement which incorporates a statement that
 all partners are liable jointly and severally for the execution of the contract and that the lead partner is authorised
 to incur liabilities, receive instructions and payments and be responsible for the entire execution of the contract for
 and on behalf of any and all the partners.

Name of firm	Address	Authorising signature, name (in caps) and capacity

D. Certificate for Sole Proprietor

I, _____, hereby confirm that I am the sole owner of the business trading as
_____.

Signed _____ Date _____

Name _____ Position Sole Proprietor _____

T2.2-15: Certificate of Attendance at Tender Clarification Meeting

This is to certify that

_____ (Tenderer)
of _____ (address)

was represented by the person(s) named below at the compulsory tender clarification meeting

Held at:	Ultra City Garage, Kroonstad	
On (date)	23 November 2016	Starting time: 10:00

As the tenderer we undertake that by said persons attending the clarification meeting we have made it our business to familiarise ourselves with all aspects of the works / service / supply specified in the tender documents in order for us to take account of everything necessary to provide a responsive tender offer and to compile our rates and prices included in the tender offer.

We further understand that in addition to any queries raised on behalf of us at the meeting we may still approach the *Employer / Purchaser's* Representative to request clarification of the tender documents until no later than five working days before the tender closing time stated in the Tender Data.

Particulars of person(s) attending the meeting:

Name	_____	Signature	_____
Capacity	_____		
Name	_____	Signature	_____
Capacity	_____		

Attendance of the above persons at the meeting was confirmed by the procuring organisation's representative as follows:

Name	_____	Signature	_____
Capacity	_____	Date & time	_____

T2.2-16: Record of Addenda to Tender Documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required.

Signed _____ Date _____
 Name _____ Position _____
 Tenderer _____

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T2.2-17 : Compulsory Enterprise Questionnaire

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name	Identity number	Personal income tax number

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> an employee of Parliament or a provincial legislature |
| <input type="checkbox"/> an official of any municipality or municipal entity | |

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	Date
Name _____	Position _____
Enterprise name _____	

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T2.2-20: Quality Plan

Due consideration must be given to the deliverables required to execute and complete the contract as per the Quality Management Standard stated in the Works Information and should include but not be limited to:

1. Project Quality Plan for the contract.
2. The Contractor's Quality Policy.
3. Index of procedures to be used during the contract.
4. Audit Schedule for internal and external audits during the contract.
5. ISO 9001 certification.
6. Typical Quality Manual.
7. Typical Quality Control Plan.
8. Typical data book index.

Attached submissions to this schedule:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-22: Health and Safety Plan

Submit the following documents as a minimum with your tender:

1. Valid letter of good standing with insurance body.
2. Roles and responsibilities of legal appointees.
3. Safety Officer's role and responsibility.
4. Safety, Health & Environmental Policies.
5. Overview of Tenderer's SHE system for project.
6. Overview of RA process and examples.
7. List of job categories for project and competencies required per category and plan to address and meet outstanding competencies.
8. Six months synopsis of SHE incidents, description, type and action taken.
9. Overview of selection process of subcontractors.
10. SHE challenges envisaged for the project and how they will be addressed and overcome.
11. Signed statement acknowledging receiving and budget provision for SHE pack requirements.
12. Complete and return with tender documentation the Contractor Safety Questionnaire (Attachment No 8) included in the Health and Safety Specification TCP-HAS-STD-0001 Rev 00 found in attached CD under Specifications folder.
13. Construction Safety File (Index)
14. Construction Safety Work Method Statement

T2.2-25: Previous Experience

Note to tenderers:

Tenderers are required to demonstrate their experience in the delivery of similar works, and to this end shall supply a sufficiently detailed reference list with contact details of existing customers and also indicate their previous experience of, their design, installation and commissioning capability.

Employer, contact person and telephone number	Description of contract	Value of work Inclusive of VAT (Rand)	Date Completed

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-31: Supplier Code of Conduct

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

- The Transnet 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)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise 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.

1. Transnet Limited 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 ensure the desired outcome of a sourcing activity;
 - Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
 - 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" Hot line to report these acts. (0800 003 056).

2. *Transnet Limited is firmly committed to the ideas of free and competitive enterprise.*

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

3. *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 is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of Interest

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet Limited.

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

Where possible, contracts will be negotiated to include the above in the terms of such contracts. To the extent such terms are not included in contractual obligations and any of the above code is breached, then Transnet reserves its right to review doing business with these suppliers.

I, _____ of _____
(insert name of Director or as per Authority Resolution from Board of Directors) *(insert name of Company)*

hereby acknowledge having read, understood and agree to the terms and conditions set out in the "Transnet Supplier Code of Conduct."

Signed this on day _____ at _____

Signature

Supplier Declaration Form

Company Trading Name							
Company Registered Name							
Company Registration Number Or ID Number If A Sole Proprietor							
Form of entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor	
VAT number (if registered)							
Company Telephone Number							
Company Fax Number							
Company E-Mail Address							
Company Website Address							
Bank Name				Bank Account Number			
Postal Address						Code	
						Code	
Physical Address						Code	
						Code	
Contact Person							
Designation							
Telephone							
Email							
Annual Turnover Range (Last Financial Year)		< R5 Million		R5-35 million		> R35 million	
Does Your Company Provide		Products		Services		Both	
Area Of Delivery		National		Provincial		Local	
Is Your Company A Public Or Private Entity				Public		Private	
Does Your Company Have A Tax Directive Or IRP30 Certificate				Yes		No	
Main Product Or Service Supplied (E.G.: Stationery/Consulting)							
BEE Ownership Details							
% Black Ownership		% Black women ownership		% Disabled person/s ownership			
Does your company have a BEE certificate			Yes		No		
What is your broad based BEE status (Level 1 to 9 / Unknown)							

How many personnel does the firm employ	Permanent		Part time	
---	-----------	--	-----------	--

Transnet Contact Person	
Contact number	
Transnet operating division	

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

Name		Designation	
Signature		Date	

Stamp And Signature Of Commissioner Of Oath

Name		Date	
Signature		Telephone No.	

T2.2-24: Capacity and Ability to meet Delivery Schedule

Note to tenderers:

The Tenderer is required to demonstrate to the *Employer* that he has sufficient current and future capacity to carry out the work as detailed in the Works Information and that he has the capacity and plans in place to meet the required delivery schedule as required. To this end, the following must be provided by the Tenderer:

A schedule detailing the following:

- Maximum quantity of work concurrently performed by the Tenderer in the recent past in order to illustrate his potential capacity to design, fabricate and/or construct work of a similar nature
- Current and future work on his order book, showing quantity and type of equipment
- Quantity of work for which the Tenderer has tenders in the market or is currently tendering on
- The work as covered in this Works Information, planned and scheduled as per the Tenderer's capacities and methods but meeting the required delivery schedule.

Index of documentation attached to this schedule:

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-43: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: _____

I / We _____ do hereby certify that ***I/we have/have not been*** found guilty during the preceding 5 (five) years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Respondent is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:

DATE OF BREACH: _____

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Respondent from the bidding process, should that person or company have been found guilty of a serious breach of law, tribunal or regulatory obligation.

SIGNED at _____ on this ____ day of _____ 20____

SIGNATURE OF WITNESS

SIGNATURE OF RESPONDENT

T2.2-36: TENDER DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this TENDER and the requirements requested from tenderers in responding to this TENDER have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below: *[Respondent to indicate if this section is not applicable]*

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly

advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to Tenderers" overleaf).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.

SIGNED at _____ on this ____ day of _____ 20__

For and on behalf of duly authorised thereto	AS WITNESS:
Name:	Name:
Position:	Position:
Signature:	Signature:
Date:	
Place:	

T2.2-50: B-BBEE PREFERENCE POINTS CLAIM FORM (SBD 6.1)

This preference form contains general information and serves as a claim for preference points for Broad-Based Black Economic Empowerment [**B-BBEE**] Status Level of Contribution.

1. INTRODUCTION

- 1.1 A total of 20 preference points shall be awarded for B-BBEE Status Level of Contribution.
- 1.2 Failure on the part of a Tenderer to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System [**SANAS**] or a Registered Auditor approved by the Independent Regulatory Board of Auditors [**IRBA**] or an Accounting Officer as contemplated in the Close Corporation Act [**CCA**] together with the Tender will be interpreted to mean that preference points for B-BBEE Status Level of Contribution are not claimed.
- 1.3 Transnet reserves the right to require of a Tenderer, either before a Tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by Transnet.

2. GENERAL DEFINITIONS

- 2.1 "**all applicable taxes**" include value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 2.2 "**B-BBEE**" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 2.3 "**B-BBEE status of contributor**" means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- 2.4 "**Tender**" means a written offer in a prescribed or stipulated form in response to an invitation by Transnet for the provision of goods, works or services;
- 2.5 "**Broad-Based Black Economic Empowerment Act**" means the Broad-Based Black Economic Empowerment Act, 2003 [Act No. 53 of 2003];
- 2.6 "**comparative price**" means the price after the factors of a non-firm price and all unconditional discounts that can be utilised have been taken into consideration;
- 2.7 "**consortium or joint venture**" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skills and knowledge in an activity for the execution of a contract;
- 2.8 "**contract**" means the agreement that results from the acceptance of a Tender by Transnet;
- 2.9 "**EME**" means any enterprise with an annual total revenue of R5 [five] million or less as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total

revenue of R10 [ten] million or less as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928;

- 2.10 **"firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs and excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.11 **"functionality"** means the measurement according to predetermined norms, as set out in the Tender documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a Tenderer;
- 2.12 **"non-firm prices"** means all prices other than "firm" prices;
- 2.13 **"person"** includes reference to a juristic person;
- 2.14 **"QSE"** means any enterprise with an annual total revenue between R5 [five] million and R35 [thirty five] million as per the 2007 version of the B-BBEE Codes of Good Practice and means any enterprise with an annual total revenue of between R10 [ten] million and R50 [fifty] million as per the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928
- 2.15 **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of Tender invitations, and includes all applicable taxes and excise duties;
- 2.16 **"subcontract"** means the primary contractor's assigning or leasing or making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract;
- 2.17 **"total revenue"** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Empowerment Act and promulgated in the Government Gazette on 9 February 2007;
- 2.18 **"trust"** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.19 **"trustee"** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The Tenderer obtaining the highest number of total points for the evaluation criteria as enumerated in Section 2 of the RFP will be awarded the contract, unless objective criteria justifies the award to another Tenderer.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3 Points scored will be rounded off to 2 [two] decimal places.
- 3.4 In the event of equal points scored, the Tender will be awarded to the Tenderer scoring the highest number of preference points for B-BBEE.

- 3.5 However, when functionality is part of the evaluation process and two or more Tenders have scored equal points including equal preference points for B-BBEE, the successful Tender will be the one scoring the highest score for functionality.
- 3.6 Should two or more Tenders be equal in all respect, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

- 4.1 In terms of the Preferential Procurement Regulations, 2011, preference points shall be awarded to a Tenderer for attaining the B-BBEE status level of contribution in accordance with the table below: *[delete either column "Maximum 10" or "Maximum 20"]*

B-BBEE Status Level of Contributor	Number of Points [Maximum 10]	Number of Points [Maximum 20]
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

- 4.2 Tenderers who qualify as EMEs in terms of the 2007 version of the Codes of Good Practice must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EME's with B-BBEE Status Level Certificates.
- 4.3 Tenderers who qualify as EMEs in terms of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928 are **only required to obtain a sworn affidavit** on an annual basis confirming that the entity has an Annual Total Revenue of R10 million or less and the entity's Level of Black ownership.
- 4.4 In terms of the 2007 version of the Codes of Good Practice, Tenderers other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 4.5 The Department of Trade and Industry recently revised the Codes of Good Practice on 11 October 2013 [Government Gazette No. 36928]. The Revised Codes will replace the Black Economic Empowerment Codes of Good Practice issued on 9 February 2007. The Revised Codes provide for

a transitional period ending 30 April 2015. During the transitional period, companies may elect to be measured in terms of the Revised Codes or the 2007 version of the Codes. Companies which are governed by Sector-specific Codes will be measured in terms of those Sector Codes.

- 4.6 As such, Transnet will accept B-BBEE certificates issued based on the Revised Codes. Transnet will also continue to accept B-BBEE certificates issued in terms of the 2007 version of the Codes provided it was issued before 1 May 2015. Thereafter, Transnet will only accept B-BBEE certificates issued based on the Revised Codes.
- 4.7 In terms of the Revised Codes of Good Practice, Tenderers who qualify as QSEs must comply with all the elements of B-BBEE for the purposes of measurement. QSEs that are at least 51% or 100% Black owned are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R50 million or less and the entity's Level of Black ownership. Large enterprises must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 4.8 A trust, consortium or joint venture will qualify for points for its B-BBEE status level as a legal entity, provided that the entity submits its B-BBEE status level certificate.
- 4.9 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate Tender.
- 4.10 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialised scorecard contained in the B-BBEE Codes of Good Practice.
- 4.11 A person will not be awarded points for B-BBEE status level if it is indicated in the Tender documents that such a Tenderer intends subcontracting more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not qualify for at least the same number of points that such a Tenderer qualifies for, unless the intended subcontractor is an EME that has the capability and ability to execute the subcontract.
- 4.12 A person awarded a contract may not subcontract more than 25% [twenty-five per cent] of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.
- 4.13 Tenderers are to note that in terms of paragraph 2.6 of Statement 000 of the Revised Codes of Good Practice issued on 11 October 2013 in terms of Government Gazette No. 36928, any representation made by an entity about its B-BBEE compliance must be supported by suitable evidence or documentation. As such, Transnet reserves the right to request such evidence or documentation from Tenderers in order to verify any B-BBEE recognition claimed.

5. B-BBEE STATUS AND SUBCONTRACTING

- 5.1 **Tenderers who claim points in respect of B-BBEE Status Level of Contribution must complete the following:**

B-BBEE Status Level of Contributor _____ = _____ [maximum of 10 / 20 points]

Note: Points claimed in respect of this paragraph 5.1 must be in accordance with the table reflected in paragraph 4.1 above and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit in the case of an EME or QSE.

5.2 Subcontracting:

Will any portion of the contract be subcontracted? YES/NO [delete which is not applicable]

If YES, indicate:

- (i) What percentage of the contract will be subcontracted?%
- (ii) The name of the subcontractor
- (iii) The B-BBEE status level of the subcontractor
- (iv) Is the subcontractor an EME? YES/NO

5.3 Declaration with regard to Company/Firm

- (i) Name of Company/Firm.....
- (ii) VAT registration number.....
- (iii) Company registration number.....
- (iv) Type of Company / Firm [TICK APPLICABLE BOX]
 - Partnership/Joint Venture/Consortium
 - One person business/sole propriety
 - Close Corporations
 - Company (Pty) Ltd
- (v) Describe Principal Business Activities
.....
.....
- (vi) Company Classification [TICK APPLICABLE BOX]
 - Manufacturer
 - Supplier
 - Professional Service Provider
 - Other Service Providers e.g. Transporter, etc.
- (vii) Total number of years the company/firm has been in business.....

TENDER DECLARATION

I/we, the undersigned, who warrants that he/she is duly authorised to do so on behalf of the company/firm, certify that points claimed, based on the B-BBEE status level of contribution indicated in paragraph 4 above, qualifies the company/firm for the preference(s) shown and I / we acknowledge that:

- (i) The information furnished is true and correct.
- (ii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 6 above, the contractor may be required to furnish documentary proof to the satisfaction of Transnet that the claims are correct.
- (iii) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, Transnet may, in

addition to any other remedy it may have:

- (a) disqualify the person from the Tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) restrict the Tenderer or contractor, its shareholders and directors, and/or associated entities, or only the shareholders and directors who acted in a fraudulent manner, from obtaining business from Transnet for a period not exceeding 10 years, after the *audi alteram partem* [hear the other side] rule has been applied; and/or
- (e) forward the matter for criminal prosecution.

WITNESSES:

- 1.
- 2.

SIGNATURE OF TENDERER

DATE:.....

COMPANY NAME:

ADDRESS:.....

T2.2-51: Certificate of Acquaintance with Tender Documents

NAME OF TENDERING ENTITY:

1. I/we do hereby certify that I/we acquainted myself/ourselves with all the documentation comprising this TENDER and all conditions contained therein, as laid down by Transnet SOC Ltd for the carrying out of the proposed supply/service/works for which I/we submitted my/our Tender.
2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any TENDER/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.
3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.
4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderder, whether or not affiliated with the Tenderder, who:
 - a) has been requested to submit a Tender in response to this Tender invitation;
 - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - c) provides the same Services as the Tenderder and/or is in the same line of business as the Tenderder
5. The Tenderder has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.
6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) geographical area where Services will be rendered [market allocation]
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a Tender which does not meet the specifications and conditions of the TENDER; or
 - f) Tendering with the intention not winning the Tender.

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7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this TENDER relates.
8. The terms of the accompanying Tender have not been, and will not be, disclosed by the Tenderder, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderders that submit suspicious Tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

SIGNED at _____ on this ____ day of _____ 20__

SIGNATURE OF WITNESS

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C1.1 Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustroom 3kV DC traction substation.

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

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

The offered total of the Prices exclusive of VAT is	R
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number:

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work: Works Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

for the
Employer

Transnet SOC Ltd

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:

For the Employer

Signature _____
 Name _____
 Capacity _____
 On behalf of _____
(Insert name and address of organisation)
 Name & signature of witness _____
 Date _____

(Insert name and address of organisation)
 Transnet SOC Ltd

C1.2 Contract Data

Part one - Data provided by the Employer

Please read the relevant clauses in the conditions of contract before you enter data. The number of the principal clause is shown for each statement however other clauses may also use the same data.

Rows containing the statement and data for options in the core clauses and for the main & secondary option clauses, according to the options chosen, are identified by shading in the left-hand column.

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	A: Priced contract with activity schedule
	and secondary Options	W1: Dispute resolution procedure
		X7: Delay damages
		X16: Retention
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Engineering and Construction Contract June 2005 (with amendments June 2006) ¹	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd (Registration No. 1990/00090/06)
	Address	Registered address: Carlton Centre 150 Commissioner Street Johannesburg 2001
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Freight Rail Supply Chain Services Kimberley
	Tel No.	(053) 838 3477
	Fax No.	(011) 774 9787

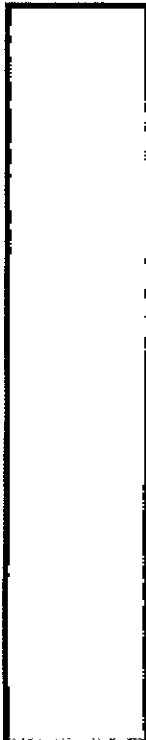
¹ Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009

10.1	The <i>Project Manager</i> is: (Name)	Sam Mamobolo
	Address	Infra Electrical Bloemfontein
	Tel	083 409 6560
	Fax	
	e-mail	Sam.mamobolo@transnet.net
10.1	The <i>Supervisor</i> is: (Name)	Alton Mashibini
	Address	Bloemfontein
	Tel No.	083 447 8944
	Fax No.	
	e-mail	Alton.mashibini@transnet.net
11.2(13)	The <i>works</i> are	For the supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustroom 3kV DC traction substation
11.2(15)	The <i>boundaries of the site</i> are	Kroonstad
11.2(19)	The Works Information is in	Part C3
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	2 weeks
3	Time	
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	To be advised
31.2	The <i>starting date</i> is.	To be advised
4	Testing and Defects	
42.2	The <i>defects date</i> is	52 (fifty two) weeks after Completion of the whole of the <i>works</i>.
5	Payment	
50.1	The <i>assessment interval</i> is monthly on the	10th (tenth) day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand.
51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.
51.4	The <i>interest rate</i> is	The prime lending rate of the Standard Bank of South Africa.
7	Title	No additional data is required for this section of the <i>conditions of contract</i>.

8 Risks and insurance

80.1	These are additional <i>Employer's</i> risks	1. None												
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the <i>works</i> , Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract for any one event is	Whatever the <i>Contractor</i> requires in addition to the amount of insurance taken out by the <i>Employer</i> for the same risk.												
	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is	Whatever the <i>Contractor</i> deems desirable in addition to which is prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.												
84.2	The insurance against loss of or damage to the <i>works</i> , Plant and Materials as stated in the insurance policy for contract works and public liability selected from: Blanket Principal Controlled Insurance (BPCI), Principal Controlled Insurance (PCI), Principal Controlled Contractors Liability Insurance, Principal Controlled Insurance One-off; and Project Specific Insurance	<p style="text-align: center;">R</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Select one</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">BPCI</td> <td></td> </tr> <tr> <td style="text-align: center;">PCI</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">PCI Liab only</td> <td></td> </tr> <tr> <td style="text-align: center;">PCI One Off</td> <td></td> </tr> <tr> <td style="text-align: center;">PSI</td> <td></td> </tr> </table>	Select one		BPCI		PCI	X	PCI Liab only		PCI One Off		PSI	
Select one														
BPCI														
PCI	X													
PCI Liab only														
PCI One Off														
PSI														
84.1	The <i>Employer</i> provides these insurances from the Insurance Table													
	1 Insurance against:	Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the selected Insurance policy for Contract Works/ Public Liability.												
	Cover / indemnity:	to the extent as stated in the selected insurance policy for Contract Works / Public Liability												
	The deductibles are:	as stated in the selected insurance policy for Contract Works / Public Liability (Principal Controlled Insurance)												
	2 Insurance against:	Loss of or damage to property (except the <i>works</i>, plant, materials & equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising out of or in connection with the performance of the Contract as stated in the selected insurance policy for Contract Works / Public Liability												

	<p>Cover / indemnity</p> <p>The deductibles are</p>	<p>Is to the extent as stated in the selected insurance policy for Contract Works / Public Liability</p> <p>as stated in the selected insurance policy for Contract Works / Public Liability</p>
84.1	<p>3 Insurance against:</p> <p>Cover / indemnity</p> <p>Cover / indemnity:</p> <p>The deductibles are:</p>	<p>Loss of or damage to Equipment (Temporary Works only) as stated in the selected insurance policy for contract Works and Public Liability</p> <p>Is to the extent as stated in the selected insurance policy for Contract Works / Public Liability</p> <p>Cover / indemnity is to the extent provided by the SASRIA coupon</p> <p>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</p>
84.1	<p>The Contractor provides these additional insurances.</p>	<ol style="list-style-type: none"> 1 Where the contract requires that the 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 affected 2 Where the contract involves manufacture, and/or fabrication of Plant & 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 & materials, components or other goods for incorporation in the works are adequately insured during manufacture and/or fabrication and transportation to the site. 3 Should the Employer have an insurable interest in such items during manufacture of fabrication, such interest shall not be noted by endorsement to the Contractor's policies of insurance as well as those of any subcontractor 4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of 5 Marine Craft Hull insurance in respect of all marine craft or vessels utilised in performance of the Works for a sum sufficient to provide for their replacement



- 6 Protection and Indemnity Insurance in respect of all marine craft or vessels utilised in performance of the Works extended for Specialist Operations with a minimum indemnity limit of R (to be determined by risk assessment of the potential risk exposure)
- 7 The insurance coverage referred to in 1, 2, 3, 4, 5 and 6 above shall be obtained from an insurer(s) 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 the 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*

9 Termination There is no Contract Data required for this section of the *conditions of contract*.

10 Data for main Option clause

A Priced contract with activity schedule No additional data is required for this Option

11 Data for Option W1

W1.1 The *Adjudicator* is Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the *Adjudicator*, the chairman of the Association of Arbitrators will appoint an *Adjudicator*.

W1.2(3) The *Adjudicator nominating body* is: The Chairman of the Association of Arbitrators (Southern Africa)
 If no *Adjudicator nominating body* is entered, it is: the Association of Arbitrators (Southern Africa)

W1.4(2) The *tribunal* is: Arbitration

W1.4(5) The *arbitration procedure* is The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)

The place where arbitration is to be held is Bloemfontein

	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	The Chairman of the Association of Arbitrators (Southern Africa)
X7	Delay damages (but not if Option X5 is also used)	
X7.1	Delay damages for Completion of the whole of the works are	R 1 000.00 per day
X16	Retention (not used with Option F)	
X16.1	The <i>retention free amount</i> is	N/A
X16.1	The <i>retention percentage</i> is	10%

C1.2 Contract Data

Part two - Data provided by the Contractor

The tendering contractor is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006) and the relevant parts of its Guidance Notes (ECC3-GN)² in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 152 to 154 of the ECC3 Guidance Notes.

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is _____ % The <i>subcontracted fee percentage</i> is _____ %	
11.2(18)	The <i>working areas</i> are the Site	
24.1	The <i>Contractor's</i> key persons are: 1 Name: _____ Job: _____ Responsibilities: _____ Qualifications: _____ Experience: _____ 2 Name: _____ Job: _____ Responsibilities: _____ Qualifications: _____ Experience: _____	CV's (and further key persons data including CVs) are in T2.2-7
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	To be advised
11.2(14)	The following matters will be included in the Risk Register	T2.2-3

² Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009

11.2(19)	The Works Information for the Contractor's design is in:	C3
31.1	The programme identified in the Contract Data is	To be supplied within 7 (seven) days
A	Priced contract with activity schedule	
11.2(20)	The activity schedule is in	C3
11.2(30)	The tendered total of the Prices is	(in words), excluding VAT
Data for Schedules of Cost Components		<i>Note "SCC" means Schedule of Cost Components starting on page 56 of ECC3, and "SSCC" means Shorter Schedule of Cost Components starting on page 59 of ECC3.</i>
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components



C2 Pricing Data

C2.1 Pricing Instructions

Entries in the first four columns in the Price List are made either by the *Employer* or the tenderer.

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

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

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.1: Pricing Instructions

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 Price List 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. Any additional costs foreseen by the Tenderer for items not included in the Price List shall be included in the List to be submitted, under the item "P's & G's". These items must be specified.
3. It will be assumed that prices included in the Price List are based on Acts, Ordinances, Regulations, Bylaws, International Standards and National Standards that were published 28 days before the closing date for tenders.
4. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted but will be subject to approval by the Employer.
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 provided for in the contract.

6. The following abbreviations are used in the Price List: Ea = Each
7. The prices and rates in this Price List are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the scope of work and shall cover liabilities and obligations set forth or implied in the Contract data, as well as profit.
8. Where the Works Information 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.
9. Where no quantity has been provided against an item in the Price List, the Contractor shall use their discretion and provide the quantity.
10. The short descriptions of the items of payment given in this Price List are only for purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Works information.
11. For each item in the Price List, including Preliminaries, the Contractor shall provide in the appropriate column the portion of the tendered sum (inclusive of labour and material).
12. The total in the Price List shall be exclusive of VAT, and shall be transferred to Contractor's Offer.
13. Additional work not covered in the Price List shall be listed and quoted for by the tenderers in a separate sheet.
14. Payment Certificates – On or after the assessment date, the Supervisor and the Contractor will together assess the quantities of the progress on each item in the Price List and complete the Progress Assessment Detail Form, where after the Progress Assessment Certificate will be issued.
15. The Contractor shall then submit a VAT invoice and attach the Progress Certificate mentioned in clause 14 of this section for payment by the Employer.
16. Contractor shall provide the Employer with the necessary details and documentation as required in order to enable the Employer to make electronic payments.

C2.2 Price List

Supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustroom 3kV DC traction substation.

PRICE LIST

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Qty</u>	<u>Rate</u>	<u>Price</u>
<u>A</u>					
1	Dismantle and remove old primary circuit breaker. Transport to Kroonstad depot.	Set	1		
2	Supply and install new SF6 gas filled circuit breaker.	Set	1		
3	Cabling and wiring	Ea	1		
4	Modify existing steelwork structures	Ea	1		
5	Testing and commissioning	Ea	1		
6	Security	Ea	1		
7	P's & G's (Labour, transport, site establishment, civil works, etc)	Ea	1		
8	Cost of SHE (Safety, health & environment)	Ea	1		
A	TOTAL PRICE =			R	
B	VAT (14% OF A) =			R	
C	GROSS TOTAL (C) =			R	

C3: Scope of Work

C3.1 Works Information

A

- 1.1 The Contractor shall not make use of any sub-Contractor to perform the works or parts thereof without prior permission from the Project Manager.
- 1.2 The Contractor shall ensure that a safety representative is at site at all times.
- 1.3 The Contractor shall comply with all applicable legislations and Transnet safety requirements adopted from time to time and instructed by the Project Manager / Supervisor. Such compliance shall be entirely at his/her own cost, and shall be deemed to have been allowed for in the rates and prices in the contract.
- 1.4 The Contractor shall, in particular, comply with the following Acts and Transnet Specifications:-
 - 1.4.1 The Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993. The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act.
 - 1.4.2 The Occupational Health and Safety Act (Act 85 of 1993).
 - 1.4.3 The Contractor shall comply with the current Transnet Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Project Manager / Supervisor.
 - 1.4.4 The Contractor shall comply with the current Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment – E7/1, if applicable, and shall take particular care of the safety of his employees on or in close proximity to a railway line during track occupations as well as under normal operational conditions.

- 1.5 The Contractor's Health and Safety Programme shall be subject to agreement by the Project Manager / Supervisor, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- 1.6 In addition to compliance with clause 1.4 hereof, the Contractor shall report all incidents in writing to the Project Manager / Supervisor. Any incident 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 incident shall be reported within 48 hours of its occurrence.
- 1.7 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- 1.8 A penalty charge of R1000.00 per day will be levied for late completion.
- 1.9 The Contractor shall supply a **site diary** (with triplicate pages). This book shall be used to record any unusual events during the period of the work. Any delays to the work shall also be recorded such as delays caused by poor weather conditions, delays caused by permits being cancelled etc. The appointed Project Manager or Supervisor must countersign such delays. Other delays such as non-availability of equipment from 3rd party suppliers must be communicated to the Project Manager or Supervisor in writing.
- 1.10 The Contractor shall supply a **site instruction book** (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site – for example the quality of work or the placement of equipment. This book shall be filled in by the Project Manager or Supervisor and must be countersigned by the Contractor.
- 1.11 Both books mentioned in 1.09 and 1.10 shall be the property of Transnet Freight Rail and shall be handed over to the Project Manager or Supervisor on the day of energising or handing over.

2.1 DESCRIPTION OF WORK

Supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers at Leeustroom 3kv DC traction substation

- 2.1.1 This project specification covers the requirements for the Supply, install, test and commissioning of SF6 gas filled outdoor primary circuit breakers (triple pole gang operated with a motor wound spring operating mechanism) at Leeustroom 3KV DC traction substation.
- 2.1.2 The contractor shall disconnect, dismantle and remove the existing Primary Circuit Breaker from site and transport it to the Kroonstad depot. The contractor shall further ensure that the removed circuit breaker is intact and any damages incurred shall be at the cost of the contractor.
- 2.1.3 The contractor shall modify the existing steel support structure to ensure that the new PCB is adequately and safely placed on the steelworks frame.
- 2.1.4 The contractor shall supply trenching services were deemed necessary for laying of control cables and wiring.
- 2.1.5 The contractor shall supply, deliver, install and connect the new high voltage SDF6 gas filled outdoor primary circuit breaker with its associated operating mechanism box.
- 2.1.6 The front of the operating mechanism box shall face the main transformer.
- 2.1.7 The contractor shall electrically connect the new installed equipment to the existing earth system.
- 2.1.8 The contractor shall test, commission and hand over the equipment to the Electrical Project Manager.

2.2 THE SITE

- 2.2.1 Access to the site will be via the Transnet service roads. Gates have to be kept closed at all times. No vehicle will be allowed to cross the railway line at any place except at level crossings.
- 2.2.2 No Transnet property like sleepers, rails, fencing, cables and ballast stone are to be removed from the site. Where fencing must be removed to get excess to wooden pole sites, the fence must be repaired the same day.
- 2.2.3 The repairs for any damages to the Transnet fencing/railway lines, Eskom power lines, Farmers and Telkom will be for the Contractors account. The repair of damage should be arranged to be completed within one day. Alternatively these costs will be deducted from the tendered amount, and Transnet will arrange for the repair of the damage.
- 2.2.4 The contractor will work under a work permit which will be issued out by a Transnet representative on daily basis. The waiting time on site before occupations are granted shall not be considered a basis for a claim for Standing Time.

2.2.5 Work will be carried at Gunhill, Serfontein and Leeustroom 3kV Dc traction substations.

2.3 PRIMARY CIRCUIT BREAKER

- 2.3.1 The SF6 circuit breaker shall comply with SABS IEC 56 and Transnet specification BBB 1267.
- 2.3.2 The circuit breaker shall have a motor wound spring operating mechanism.
- 2.3.3 A visual mechanical indicating device shall be provided to indicate the state of the spring and shall be inscribed "Spring Charged" when the mechanism is in the condition to close the circuit breaker and "Spring Free" when it is in any other condition.
- 2.3.4 The operating springs shall recharge automatically after the completion of a closing operation.
- 2.3.5 The low gas protection shall be wired into the existing control circuitry.
- 2.3.6 The contractor shall ensure that the circuit breaker trips under the following conditions
- Main transformer over-temperature
 - Main transformer overload
 - Rectifier over-temperature
 - Rectifier fan failure
 - Auxiliary transformer overload
- 2.3.7 The circuit breaker shall trip and lockout in the open position under the following conditions;
- Main transformer Buchholz operation
 - Auxiliary transformer Buchholz operation
 - Attenuation failure
 - AC earth leakage
 - DC earth leakage
 - 110 DC failure
 - Low SF6 gas pressure

2.4 TESTING AND COMMISSIONING

- 2.4.1 Commissioning shall include the energising of installed equipment. The contractor shall prove the satisfactory and safe operation of all the equipment under "live" conditions.
- 2.4.2 All pre-commissioning tests shall be performed by the contractor. The contractor should inform Transnet Freight Rail's Project Manager or Technical Officer about dates of such tests should the technical officer deem it necessary to witness such tests.
- 2.4.3 The contractor shall supply all test equipment and instruments required for commissioning.

- 2.4.4 Transnet shall perform the final commissioning tests. The contractor shall be present during the testing and commissioning to rectify any faults found.
- 2.4.5 On completion of the tests and commissioning, the contractor will hand over the substation/installed equipment to Transnet Freight Rail's project manager.
- 2.4.6 Acceptance by the technical officer of satisfactory completion of on-site tests is no way relieves the contractor of his obligation to rectify defects which may have been overlooked or become evident at a later stage.

2.5 GUARANTEE AND DEFECTS

- 2.5.1 The contractor shall guarantee the satisfactory operation of the complete electrical installation supplied and erected by him and accept liability for maker's defects that may appear in design, materials and workmanship.
- 2.5.2 The guarantee period for the installed equipment shall expire after a period of 12 months commencing on the date on which the installed equipment was tested and commissioned, and the site was handed over to Transnet Freight Rail.
- 2.5.3 The contractor shall undertake to attend to any defects during the guarantee period within 7 (seven) days after commissioning. Any defects identified during the 12 months guarantee period shall be rectified to the satisfaction of Transnet Freight Rail and the contractor shall incur associated cost on his own account.
- 2.5.4 Should the contractor fail to comply with the requirements stipulated above, Transnet Freight Rail shall be entitled to undertake the necessary repair work or effect replacement of defective apparatus or materials, and the contractor shall reimburse Transnet Freight Rail the total cost of such repair or replacements, including the labour costs incurred in replacing defective material or equipment.
- 2.5.5 Any specific type of fault occurring three times or more, within the guarantee period and which cannot be proven to be due to other faulty equipment not forming part of the contract – faulty locomotive or overhead track equipment, etc. – shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the Project Manager and at the cost of the contractor.
- 2.5.6 If urgent repairs have to be carried out by Transnet Freight Rail staff to maintain operational requirements during the guarantee period, the contractor shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse Transnet Freight Rail the cost of material and labour.

3. TO BE SUPPLIED BY TRANSNET FREIGHT RAIL

- 3.1 Transnet Freight Rail will supply a co-ordinator who will issue a work permit on a daily basis.

3.2 Transnet will also arrange a work permit for 6 hours per day (on average).

4. TO BE SUPPLIED BY THE CONTRACTOR

- 4.1 The Contractor is responsible to supply his own equipment, tools, transport and labour for the work to be done.
- 4.2 Contractor must supply his own security. Transnet Freight Rail Security reserves the right to patrol high security areas wherein the contractor might work.
- 4.3 The Contractor is responsible to use all necessary PPE and must adhere to the safety rules and regulations of Act 85.
- 4.4 Together with the tendering documents, contractors shall provide a provisional Gantt or similar charts showing a detailed project plan. A final detailed project plan shall be submitted to the Transnet project manager or technical officer within 7 days after the successful contractor has been awarded.
- 4.5 The contractor must supply a valid and certified (supply proof of a valid calibration certificate) SABS/SANAS approved breathalyser. The contractor must conduct breathalysers test on his/her employees before and after every shift.

5. SAFETY

- 5.1 It will be expected of the Contractor to inform the Technical Officer about his daily activities. This information is required in order to inform the Train personnel of activities adjacent to railway lines and is important for the safety of the Contractor and his personnel.
- 5.2 The Contractor is reminded that working in the HT yard is hazardous and has to be treated as such. The Contractor must ensure that no workers and equipment are on or within 3 metres of live high voltage electrical equipment/power cables. The Contractor must ensure that all employees are equipped with luminous vests or jackets. Open fires are not allowed on site. Any fires that may occur should be extinguished immediately at own costs. Any claims due to fires caused by the Contractor will be for his account.
- 5.3 The Contractor is not allowed to perform any work without a member of the Electrical Department of Transnet Freight Rail present. All material, which exceeds 2 metres in length, shall at all-time be carried below head height near live high-voltage equipment. The utmost care must be taken to ensure that no part of material comes within 3 metres of any live high voltage equipment. The Contractor must also inform the people under his control not to use objects like sticks, poles, etc. to remove nests or any other objects from high-voltage

equipment. No water shall be used in the form of a jet if it can make contact with any high-voltage equipment.

- 5.4 It is required from the Contractor to submit to the Project Manager a Safety Plan covering all the aspects of safety on site and safe working methods.
- 5.5 The Contractor shall comply with requirements of safety legislation and regulations in all respects.
- 5.6 Security of all of the Contractor's staff, vehicles, machinery, equipment and materials shall remain the responsibility of the Contractor. The Contractor may use Transnet Freight Rail premises from time to time but the responsibility and cost to provide security, which may be required, shall be for the Contractor's account. No separate payment shall be made and the cost thereof shall be deemed to be included in the rates tendered. Transnet Freight Rail shall entertain no claims whatsoever in this regard.
- 5.7 The method of work shall at all times with Transnet Freight Rail Specification E7/1
- 5.8 No other separate payment shall be made for the safety measures and the costs hereof will be to have been included in the rates tendered (Price list).
- 5.9 The Contractor shall prepare and submit to Transnet Freight Rail before commencement of the work, a comprehensive safety plan which shall also cover the following headings:
 - 5.9.1.1 Fire prevention and firefighting plan.
 - 5.9.1.2 Risk assessment and Safety procedures for staff when working on DC traction substations.
 - 5.9.1.3 Safe working procedure for all aspects of the operation, inclusive of all moving of machinery by rail if required by the Contractor.

6. QUALITY INSPECTION AND PAYMENTS

- 6.1 The Contractor shall take every precaution to protect the work against damage of any kind and not to cause damage to property or injury to any person as a result of his execution of the work.

- 6.2 The Contractor shall, in his interests, obtain insurance of his own site establishment, materials, plant, equipment and tools as well as insurance for his motor vehicles and the common law liabilities of the contractor as an employer
- 6.3 Transnet Freight Rail will arrange Public Liability Insurance were deemed necessary.
- 6.4 Transnet Freight Rail shall, were deemed necessary, inspect the equipment under the contract at the premises of the manufacturer or successful contractor prior to the equipment being delivered on site. It is the contractor's responsibility to notify Transnet Freight Rail's project manager 7 days in advance of the inspection date.
- 6.5 A final Inspection of the work will be done after the Contractor has notified the Project Manager in charge of the project that the work has been completed. If the work is found to be satisfactory and Transnet Freight Rail's site is left in the same condition as found, a Certificate of Completion will be issued and the contract will be considered completed.
- 6.6 The contractor shall be responsible for issuing of a compliance certificate in terms of SANS 0142 before energizing of the equipment shall take place.

7. CAMP SITES

- 7.1 No temporarily campsite will be made available. All contractors on Transnet Freight Rail property are to comply with Act 85 and Nosa standards as well as Municipal by-laws.

8. POLLUTION PREVENTION

- 8.1 According to the Environmental Management System of the Bloemfontein depot, pollution must be prevented as far as possible and where pollution occurs due to the negligence of the contractor, he/she will be responsible for corrective actions or he/she will be held liable for corrective actions required.

9. STANDARD SPECIFICATIONS

The conditions contained in the following documents/PUBLICATIONS (LATEST EDITION) shall also apply:

- 9.1 E4B (July 2015) Minimum Communal Health Requirements in areas outside the jurisdiction of a local Authority.
- 9.2 E4E Transnet (July 2015) Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act.
- 9.3 Specification E7/1 (July 2015) Specification for works on, over, under, or adjacent to railway lines and near high voltage equipment.
- 9.4 Transnet specifications

- BBB 1267 : Specification for outdoor high voltage alternating current circuit breakers in accordance with SABS IEC 56:1987
- SABS IEC 56 – High Voltage Alternating Current Circuit Breakers
- SABS 703 – Hot Dip Galvanised Zinc Coatings
- SANS 60694: Common specification for high voltage switchgear and control-gear standards
- CEE.0045 : Painting of steel components of Electrical equipment
- CEE.0224 – Drawings, catalogues, instruction manuals and spares
- *All Transnet Freight Rail Electrical Safety Instructions of 2012.*

9.5 Drawings

10. FINANCES

10.1 Penalty for late completion:

If the Contractor does not meet the stipulated completion time a penalty of R1000 per day shall be imposed for every day or part thereof for late completion.

10.2 Value Added Tax:

The tendered rates in the schedule of quantities and prices must exclude VAT. VAT will be calculated and added to the total at the bottom of the schedule of Quantities and Prices.

10.3 The contractor must submit his tax invoice once a month for the work done to date. The deadline date of submission will be communicated to the contractor and the contractor must ensure that these timelines are adhered to.

10.4 The Technical Officer shall conduct a quality inspection before the tax invoice has been submitted. The technical officer reserves the right to withhold payments if the works done are below standards stipulated in this specification.

11. SITE CONDITIONS AND REQUIREMENTS

11.1 Offices, Workshops and Campsites

The Contractor shall allow for making of his own arrangements for housing, security, water, communications, electricity, sanitary, refuse removal and all other services to these sites.

On vacating these sites the Contractor shall clean the sites of all rubbish and reinstate the sites to the satisfaction of the Technical Officer.

11.2 Access to Work Site, Office, Workshops and Camps

- 11.2.1 The Contractor may make use of existing roads to gain access to site.
- 11.2.2 Transnet Freight Rail will however not be responsible for ensuring all weather passage to the Contractor.
- 11.2.3 Transnet Freight Rail will entertain no claims from the Contractor for production delays, work done or expenditure incurred in gaining access to the work sites, offices, workshops or campsites.
- 11.3 The Contractor shall allow that weather conditions may adversely affect his rate of progress and plan his progress as well as labour capacity accordingly.
- 11.4 The risk of loss in production due to abnormal weather prevailing for the area shall be on the Contractor. In the event of abnormal weather conditions prevailing, the onus for proof shall be on the Contractor and Transnet Freight Rail shall consider a claim upon written proof submitted by the Contractor.

12. SITE BOOKS

The Contractor shall record in the **site diary**: -

- 12.1 Planned working times and Actual Working times.
- 12.2 Daily progress report of works done. Any deviations must be recorded.
- 12.3 Safety talk and risk assessment must be done and recorded on a daily basis.
- 12.4 The Contractor shall supply a **site instruction book** (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site – for example the quality of work or the placement of equipment. This book shall be filled in by the Project Manager or Technical Officer and must be countersigned by the Contractor.
- 12.5 Both books (Site diary and Site instruction book) shall be the property of Transnet Freight Rail and shall be handed over to the Project Manager or Supervisor on the day of handing over.

13. SITE MEETINGS

The Contractor shall attend meetings at dates and times convened by the Technical Officer (normally once a week). Such meetings shall be for the purpose of discussing actual progress versus construction programme, delays, conditions and specifications, occupations, material truck requirements etc. The meeting will be held

TRANSNET FREIGHT RAIL
ENQUIRY NUMBER: BFX/54035
DESCRIPTION OF THE WORKS: FOR THE SUPPLY, INSTALL, TEST AND COMMISSIONING OF SF6 GAS FILLED OUTDOOR PRIMARY CIRCUIT
BREAKERS AT LEEUSTROOM 3KV DC TRACTION SUBSTATION

under the chairmanship of the Technical Officer and the proceedings will be minuted.

TRANSNET FREIGHT RAIL
ENQUIRY NUMBER: BFX/54035
DESCRIPTION OF THE WORKS: FOR THE SUPPLY, INSTALL, TEST AND COMMISSIONING OF SF6 GAS FILLED OUTDOOR PRIMARY CIRCUIT
BREAKERS AT LEEUSTROOM 3KV DC TRACTION SUBSTATION



OCCUPATIONAL HEALTH AND SAFETY ACT 85 OF 1993 (AS AMENDED)

AGREEMENT WITH MANDATORY
In terms of Section 37(1) & (2)

WRITTEN AGREEMENT ENTERED INTO AND BETWEEN

Transnet Freight Rail
(Hereinafter referred to as the Employer)

AND

(Hereinafter referred to as Mandatory (Principal Contractor))

Compensation Fund Number :

**Project Name: Supply install test & commission SF6 circuit breaker at
Leeustroom 3kV DC Traction substation**

NOTE: AGREEMENT WITH THE MANDATORY TO BE COMPLETED IN BLACK INK AND EACH PAGE AND CHANGE TO BE INITIATED.

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PREAMBLE

WHEREAS section 37(1) & (2) of the Occupational Health and Safety Act No 85 of 1993 ("the Act") requires that parties have an agreement in writing to ensure compliance by a mandatory in line with the provisions of the Act.

AND WHEREAS Transnet Freight Rail ("TFR") requires the services of the Contractors to execute certain projects within its workshops.

AND WHEREAS TFR can be better served by Contractors who have the infrastructure, specialist employees and expertise to execute such projects at the highest level of efficiency on short notice.

NOW THEREFORE the parties agree as follows;

1. DEFINITIONS

For the purpose of this agreement, unless the context indicates otherwise, the following definitions are set out for the terms indicated:

- 1.1 "Act" means the Occupational Health and Safety Act No 85 of 1993;
- 1.2 "Agreement" means this Mandatory agreement;
- 1.3 "Contractor " means the Mandatory;
- 1.4 "COID Act" means the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.
- 1.5 "Effective Date" means the date of signature of this Agreement by the last party signing hereto;
- 1.6 "Employer" refers to TFR;
- 1.7 "Main Contract" means the main contract whereby the supplier has to provide services to TFR.
- 1.8 "Mandatory" means an agent, Contractor or sub-contractor for work, but without derogating from the status in his own right as an employer or user;

- 1.9 "Parties" means TFR and the Contractor, and "Party" shall mean either one of them, as the context indicates;
- 1.10 "Regulations" means regulations promulgated in terms of the relevant legislation.
- 1.11 "Section" means the relevant section of the Occupational Health and Safety Act No 85 of 1993
- 1.12 "Services" means the services to be provided by the Contractor to TFR.
- 1.13 "TFR" means Transnet Freight Rail, a division of Transnet SOC Limited (Registration No. 1990/000900/06), a public company incorporated in accordance with the company laws of the Republic of South Africa;

2. INTERPRETATION

- 2.1 Clause headings in this Agreement are included for ease of reference only and do not form part of this Agreement for the purposes of interpretation or for any other purpose. No provision shall be construed against or interpreted to the disadvantage of either Party hereto by reason of such Party having or being deemed to have structured or drafted such provision.
- 2.2 Any term, word or phrase used in this Agreement, other than those defined under the clause heading "Definitions" shall be given its plain English meaning, and those terms, words, acronyms, and phrases used in this Agreement will be interpreted in accordance with the generally accepted meanings accorded thereto.
- 2.3 A reference to the singular incorporates a reference to the plural and vice versa.
- 2.4 A reference to natural persons incorporates a reference to legal persons and vice versa.
- 2.5 A reference to a particular gender incorporates a reference to the other gender.

3. REPORTING

- 3.1 The Mandatary and/or his designated person appointed in terms of Section 16(2) of the Occupational Health and Safety Act 85 of 1993 ("the OHS Act") shall report to the Risk Manager and/or a Project Manager and/or a representative designated by the Employer prior to commencing the work at the premises of the Employer.

4. WARRANTY OF COMPLIANCE

- 4.1 In terms of this Agreement the Mandatary warrants that he agrees to any of the arrangements and procedures as prescribed by the Employer and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the OHS Act.
- 4.2 The Mandatary further warrants that he and/or his employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, nor from the

provisions of the said Agreement, the Mandatary shall ensure that the clauses as hereunder described are at all times adhered to by himself and his employees.

- 4.3 The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct of his activities and that of his employees.

5. APPOINTMENTS AND TRAINING

- 5.1 The Mandatary shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work is to be performed under his responsibility. Copies of any appointments made by the Mandatary shall immediately be provided to the Employer.
- 5.2 The Mandatary shall further ensure that all his employees are trained on the health and safety aspects relating to the work to be done on the premises of the Employer and that they understand the hazards associated with such work being carried out on the premises. Without derogating from the foregoing, the Mandatary shall, in particular, ensure that all his users or operators of any materials, machinery or equipment are properly trained in the use of such materials, machinery or equipment.
- 5.3 Notwithstanding the provisions of the above, the Mandatary shall ensure that he, his appointed responsible persons and his employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6. SUPERVISION, DISCIPLINE AND REPORTING

- 6.1 The Mandatary shall ensure that all work performed on the Employer's a premise is done under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his employees regarding non-compliance by such employee with any health and safety matters.
- 6.2 The Mandatary shall further ensure that his employees report to him all unsafe or unhealthy work situations immediately after they become aware of such conditions and that he in turn immediately reports these to the Employer and/or his representative.

7. ACCESS TO THE OHS ACT

- 7.1 The Mandatary shall ensure that he has an updated copy of the OHS Act on site at all times and that this is accessible to his appointed responsible persons and employees, save that the parties may make arrangements for the Mandatary and his appointed responsible persons and employees to have access to the Employer's updated copy/copies of the Act.

8. COOPERATION

- 8.1 The Mandatary and/or his responsible persons and employees shall provide full co-operation and information if and when the Employer or his representative inquires into any occupational health

and safety issues concerning the Mandatary. It is hereby recorded that the Employer and his representative shall at all times be entitled to make such inquiry.

- 8.2 Without derogating from the generality of the above, the Mandatary and his responsible persons shall make available to the Employer and his representative, on request, all and/or any checklists and inspection registers required to be kept by him in respect of any of his materials, machinery or equipment.

9. WORK PROCEDURES

- 9.1 The Mandatary shall, after having established the dangers associated with the work performed, develop and implement mitigation measures to minimize or eliminate such dangers for the purpose of ensuring a healthy and safe working environment. The Mandatary shall then ensure that his responsible persons and employees are familiar with such mitigation measures.
- 9.2 The Mandatary shall implement any other safe work practices as prescribed by the Employer and shall ensure that his responsible persons and employees are made conversant with such other safe work practices as prescribed by the Employer and that his responsible persons and employees adhere to such safe work practices.
- 9.3 The Mandatary shall ensure that work for which any permit is required by the Employer is not performed by his employees prior to the Employer obtaining such permit from the Mandatary.

10. HEALTH AND SAFETY MEETINGS

- 10.1 If required in terms of the OHS Act, the Mandatary shall establish his own health and safety committee(s) and ensure that his employees, being the committee members, provide health and safety representatives to attend the Employer's health and safety committee meetings.

11. COMPENSATION REGISTRATION

- 11.1 The Mandatary shall ensure that he has a valid proof of registration with the Compensation Commissioner, as required in terms of **COID Act**, and that all payments owing to the Commissioner are discharged. The Mandatary shall further ensure that the cover remain in force while any such employee is present on the premises.

12. MEDICAL EXAMINATIONS

- 12.1 The Mandatary shall ensure that all his employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

13. INCIDENT REPORTING AND INVESTIGATION

- 13.1 All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour and to the Employer. The Employer shall further be provided with copies of any written documentation relating to any incident.

- 13.2 The Employer retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of section 32 of the OHS-Act into such incident.

14. SUBCONTRACTORS

- 14.1 The Mandatary shall notify the Employer of any subcontractor he may wish to perform work on his behalf on the Employer's premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:
- 14.1.1 The Mandatary shall ensure that training as discussed under appointments and training, is provided prior to the subcontractor commencing work on the Employer's premises.
- 14.1.2 The Mandatary shall ensure that work performed by the subcontractor is done under his strict supervision, discipline and reporting.
- 14.1.3 The Mandatary shall inform the Employer of any health and safety hazards and/or issue that the subcontractor may have brought to his attention.
- 14.1.4 The Mandatary shall inform the Employer of any difficulty encountered regarding compliance by the subcontractor with any health and safety instruction, procedure and/or legal provision applicable to the work the subcontractor performs on the Employer's premises.

15. SECURITY AND ACCESS

- 15.1 The Mandatary and his employees shall enter and leave the premises only through the main gate(s) and/or checkpoint(s) designated by the Employer. The Mandatary shall ensure that employees observe the security rules of the Employer at all times and shall not permit any person who is not directly associated with the work from entering the premises.
- 15.2 The Mandatary and his employees shall not enter any area of the premises that is not directly associated with their work.
- 15.3 The Mandatary shall ensure that all materials, machinery or equipment brought by him onto the premises are recorded at the main gate(s) and/or checkpoint(s). Failure to do this may result in a refusal by the Employer to allow the materials, machinery or equipment to be removed from the Employer's premises.

16. FIRE PRECAUTIONS AND FACILITIES

- 16.1 The Mandatary shall ensure that an adequate supply of fire-protection and first-aid facilities are provided for the work to be performed on the Employer's premises, save that the Parties may mutually make arrangements for the provision of such facilities.
- 16.2 The Mandatary shall further ensure that all his employees are familiar with fire precautions at the premises, which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

17. ABLUTION FACILITIES

- 17.1 The Mandatary shall ensure that an adequate supply of ablution facilities are provided for his employees performing work on the Employer's premises, save that the parties may mutually make arrangements for the provision of such facilities.

18. HYGIENE AND CLEANLINESS

- 18.1 The Mandatary shall ensure that the work site and surround area is at all times maintained to the reasonably practicable level of hygiene and cleanliness. In this regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

19. NO NUISANCE

- 19.1 The Mandatary shall ensure that neither he nor his employees undertake any activity that may cause environmental impairment or constitute any form of nuisance to the Employer and/or his surroundings.
- 19.2 The Mandatary shall ensure that no hindrance, hazard, annoyance or inconvenience is inflicted on the Employer, another Mandatary or any tenants. Where such situations are unavoidable, the Mandatary shall give prior notice to the Employer.

20. INTOXICATION NOT ALLOWED

- 20.1 **No intoxicating substance of any form shall be allowed on site. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.**

21. PERSONAL PROTECTIVE EQUIPMENT

- 21.1 The Mandatary shall ensure that his responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the requirements of General Safety Regulation 2 (1) of the OHS Act. The Mandatary shall further ensure that his responsible persons and employees wear the PPE issued to them at all material times.

22. PLANT, MACHINERY AND EQUIPMENT

- 22.1 The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he may wish to utilize on the Employer's premises is/are at all times of sound order and fit for the purpose for which it/they is/are attended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.
- 22.2 In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the premises, or manufactures, sells or supplies to or for the Employer, complies with all the prescribed requirements and will be safe and without risks in terms of health and safety when properly used.

23. NO USAGE OF THE EMPLOYER'S EQUIPMENT

- 23.1 The Mandatary hereby acknowledges that his employees are not permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Employer has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of such materials, machinery or equipment, have access thereto.

24. TRANSPORT

- 24.1 The Mandatary shall ensure that all road vehicles used on the premises are in a roadworthy condition and are licensed and insured. The Mandatary shall ensure that all drivers shall have relevant and valid driving licenses and the Mandatary shall ensure that no vehicle/s shall carry passengers unless it is specifically designed to do and that all drivers shall adhere to the speed limits and road signs on the premises at all times.
- 24.2 In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Substances Act 15 of 1973 are complied with fully all times.

25. CLARIFICATION

- 25.1 In the event that the Mandatary requires clarification of any of the terms or provisions of this Agreement, he should take the necessary steps to contact the Risk Manager of the Employer to obtain such clarification.

26. DURATION OF AGREEMENT

- 26.1 This Agreement shall remain in force for the duration of the work to be performed by the Mandatory and/or while any of the Mandatory's employees are present on the Employer's premises.

27. NON COMPLIANCE WITH THE AGREEMENT

- 27.1 If the Mandatory fails to comply with any provisions of this Agreement, the Employer shall be entitled to give the mandatory 7 (seven) days written notice to remedy such non compliance and if the Mandatory fails to comply with such notice, then the Employer shall forthwith be entitled but not obliged, without prejudice to any other rights or remedies which the mandatory may have in law,

27.1.1 to suspend the main Agreement; or

27.1.2 To claim immediate performance and/or payment of such obligations.

- 27.2 Should mandatory continue to breach the contract on three occasions, then the Employer is authorised to suspend the main contract without complying with the condition stated in the clause above.

28. HEADINGS

The headings as contained in this Agreement are for reference purposes only and shall not be construed as having any interpretative value in them or as giving any indication as to the meaning of the contents of the paragraphs contained in this Agreement.

Thus done and signed

at _____ on the _____ day of _____ 20__

For and on behalf of the Employer

Witnesses:

1. _____

2. _____

at _____ on the _____ day of _____ 20__

for and on behalf of the Mandatary

Witnesses:

3. _____

4. _____



TECHNOLOGY MANAGEMENT.

SPECIFICATION.

REQUIREMENTS FOR OUTDOOR ALTERNATING-CURRENT CIRCUIT BREAKERS FOR TRACTION AND DISTRIBUTION SUBSTATIONS

Author:	Chief Engineering Technician Technology Management	D.O.Schulz
Approved:	Senior Engineer Technology Management	L.O.Borchard
Authorised:	Principal Engineer Technology Management	W.A.Coetzee

Three handwritten signatures in black ink, corresponding to the names listed in the table above. The signatures are written over dotted lines.

Date: 21st September 2009

Circulation Restricted To:

Transnet Freight Rail – Chief Engineer Infrastructure
- Technology Management

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1.0 SCOPE

- 1.1 This specification covers Transnet freight rail requirements for the design, manufacture, testing and supply of outdoor Alternating Current (AC) circuit breakers in accordance to SANS 62271-100.
- 1.2 The alternating current circuit breakers shall be suitable rated for nominal phase to phase r.m.s voltages ranging from 22 kV to 220 kV.

2.0 STANDARDS, PUBLICATIONS AND DRAWINGS

- 2.1 Unless otherwise specified all materials and equipment supplied shall comply with the applicable and latest editions of SANS or Transnet freight rail publication.
- 2.2 The following publications are referred to in this specification:

2.2.1 SOUTH AFRICAN NATIONAL STANDARDS

- SANS 121: - Hot-dip Galvanized coatings for fabricated iron or steel articles.
- SANS 1431: - Weldable structural steels.
- SANS 60529: - Degrees of protection provided by enclosures (IP code).
- SANS 60694: - Common Specifications for high-voltage switchgear and controlgear standards.
- SANS 60815 - Guide for the selection of insulators in respect of polluted conditions
- SANS 62271-100: - High Voltage Alternating Current Circuit Breakers.

2.2.2 TRANSNET FREIGHT RAIL SPECIFICATIONS.

- CEE.0045: Painting of Steel Components of Electrical Equipment.
- CEE.0224: Drawings, Catalogues, Instruction Manuals and Spares.

- 2.2.3 Occupational Health and Safety Act No 85 of 1993.

2.2.4 TRANSNET FREIGHT RAIL DRAWINGS

- CEE-TBK-0027: - Control circuit diagram. No-volt coil protection.

- 2.3 Any items offered in accordance with other standards will be considered at the sole discretion of Transnet freight rail. The tenderer shall supply full details stating where the item differs from these specifications as well as supplying a copy (in English) of the recognised standard specification(s) with which it complies.

3.0 TENDERING PROCEDURE

- 3.1 Tenderers shall indicate clause-by-clause compliance with this specification as well as the relevant equipment specifications. This shall take the form of a separate document listing all the specifications clause numbers indicating on individual statement of compliance or non-compliance.
- 3.2 The tenderer shall motivate a statement of non-compliance.
- 3.3 Tenderers shall complete Appendix 2. " Information to be provided by tenderers".
- 3.4 Tenderers shall submit detailed technical literature of the current transformers offered together with drawings showing, general constructional details and principal dimensions.
- 3.5 Any items offered in accordance with other standards will be considered at the sole discretion of Transnet freight rail. The tenderer shall supply full details stating where the item differs from these specifications as well as supplying a copy (in English) of the recognised specification(s) with which it complies.

3.6 Failure to comply with clauses 3.1, 3.2, 3.3, 3.4 and 3.5 could preclude a tenderer from consideration.

4.0 APPENDICES

The following appendices form an integral part of this specification and shall be read in conjunction with it.

4.1 Appendix 1 - "Schedule of Requirements".

This appendix details the specific requirements for this application.

4.2 Appendix 2 - "Information to be provided by tenderers".

This appendix calls for specific technical information to be furnished by tenderers.

5.0 SERVICE CONDITIONS.

The current circuit breaker shall be designed to operate under the following conditions.

5.1 ATMOSPHERIC CONDITIONS

- 5.1.1 Altitude: 0 to 1800m above sea level.
Ambient temperature: -5°C to +45 °C.
Relative humidity: 10% to 90%
Lightning Conditions: 12 ground flashes per square kilometre per annum.
Pollution: Heavily salt laden or polluted with smoke from industrial sources.

5.2 ELECTRICAL CONDITIONS

- 5.2.1 Supply voltage: The incoming AC voltage can vary $\pm 5\%$ of the nominal system r.m.s voltage.
5.2.2 Frequency: Frequency of the supply voltage is 50 ± 2.5 Hz.

6.0 REQUIREMENTS FOR ALTERNATING CURRENT CIRCUIT BREAKERS.

- 6.1 The AC circuit breakers shall be designed, manufactured and tested in accordance with the requirements of specifications SANS 62271-100 and SANS 60694.
6.2 The circuit breakers shall be of the outdoor type suitable for operation under the nominal phase to phase voltages or phase to neutral voltages specified in Appendix 1.
6.3 The insulating medium of the primary circuit breakers shall be SF6 gas or vacuum, depending on the supply voltage. (Refer to Appendix 1)
6.3.1 Vacuum circuit breakers may be used for voltages ranging from 22 kV up to 33 kV
6.4 The AC circuit breakers used on Transnet freight rail may the single, double or triple pole type.
6.4.1 Double or triple pole type circuit breakers shall be ganged operated.
6.5 The circuit breakers shall be rated at the highest r.m.s. voltage for equipment operating at the nominal system voltage specified in Appendix 1.
6.6 The minimum rupturing capacities for the respective voltages and current ratings for the circuit breakers shall be in accordance to the SANS 62271-100. The rated short-circuit breaking current shall be at least 20kA.
6.7 The circuit breakers shall be rated for a continuous current of at least 1250 Ampere
6.8 The circuit breakers shall have a first pole to clear factor of 1.5.
6.9 The circuit breakers shall have a making time not greater than 1 second.
6.10 The circuit breakers shall be capable of twice rupturing the specified fault current at the specified voltages, with a one minute interval between operations and then shall be in a condition to be closed and carry the rated current without it being necessary to inspect or make adjustments.

- 6.11 The circuit breaker shall be electrically operated from a nominal 110 Volt DC control voltage unless otherwise specified in Appendix 1.
- 6.12 It shall be possible to close the circuit breaker only when the control voltage is above 85% of the nominal voltage. The circuit breaker shall trip automatically when the control voltage falls below 70% of the nominal voltage.
- 6.13 The circuit breaker shall have a motor wound spring operating mechanism.
- 6.14 The operating mechanism shall be provided with shunt release for both opening and closing.
- 6.15 Pneumatic, hydraulic or gas control for tripping and closing the primary circuit breakers are not acceptable.
- 6.16 The operating mechanism shall be so designed so that the breaker may be closed manually from ground level by means of a suitable detachable handle.
- 6.17 The operating mechanism shall be constructed of non-ferrous material.
- 6.18 The operating springs shall recharge automatically after the completion of a closing operation.
- 6.19 The circuit breaker shall be of the trip-free type.
- 6.20 A visual mechanical indicating device shall be provided to indicate the state of the spring and shall be inscribed "Spring Charged" when the mechanism is in the condition to close the circuit breaker and "Spring Free" when it is in any other condition.
- 6.20.1 One pair of normally open and normally closed contacts shall be provided for the indication circuitry to the substation control panel for indication of the "Spring Charged" and "Spring Discharged" conditions.
- 6.21 Auxiliary contacts shall be provided for operation in conjunction with the protection and other auxiliary circuits specified. At least one spare pair of normally open and one spare pair of normally closed contacts shall be provided.
- 6.22 Circuit breaker control switches shall be provided on the circuit breaker mechanism. They shall return automatically to the neutral position when the handle is released after being turned to either the "close" or "trip" positions.
- 6.23 Local/Remote selector switches shall be provided on the circuit breaker mechanism and shall be of the two-position type. The switch shall have no "off" or "neutral" position.
- 6.23.1 Provision shall be made that when the circuit breaker is switched to the local position, the protection and trip circuitry to the circuit breaker shall not in any way be by-passed.
- 6.24 Mechanical operation shall be provided on the circuit breaker for any closing or trip release, which is normally electrically operated.
- 6.25 The circuit breaker shall be provided with a no volt coil with a mechanical latching mechanism, which will trip, lockout and inhibit the circuit breaker from closing when the no volt coil is de-energised. Refer to Transnet Freight Rail's drawing No. CEE-TBK-27 which forms part of this specification, for details of the control circuitry for the no volt protection.
- 6.25.1 The no volt coil circuitry with its associated mechanical latching mechanism shall operate separately from the trip coil circuitry.
- 6.26 A counter shall be provided on the circuit breaker to indicate the total number of operations of the breaker.
- 6.27 Tenderers shall advise the number of circuit breaker operations under full load and fault conditions, after which maintenance and/or measurement of contact wear is recommended.
- 6.28 The circuit breaker operating mechanism including its controls and relays shall be housed in a metal enclosure.
- 6.29 The enclosure housing shall be manufactured from stainless steel or hot dipped galvanised steel.
- 6.30 The coating of the enclosure if galvanised shall comply with the requirements of Transnet freight rail's specification CEE.0045.
- 6.31 The degree of protection of the enclosure shall be in accordance with SANS 60529 and shall be IP 55.

- 6.32 Provision shall be made for the enclosure to be pad-lockable.
- 6.33 The enclosure shall be provided with a gland plate for bottom entry of the control cables.
- 6.34 VACUUM CIRCUIT BREAKERS.**
- 6.34.1 Vacuum switching devices shall be evacuated and sealed in accordance with the latest technology and accepted practice.
- 6.34.2 The pre striking and chopping current shall be kept below 5 amperes. Tenderers shall give full details regarding these characteristics.
- 6.34.3 Where vacuum circuit breakers are specified in Appendix 1 they shall be either of the motor wound spring operating mechanism or magnetic actuator operating mechanism type.
- 6.35 SULPHUR HEXAFLUORIDE CIRCUIT BREAKERS. (SF6)**
- 6.35.1 The SF6 circuit breaker shall be fitted with a pressure gauge/densimeter to monitor the gas pressure.
- 6.35.2 The pressure gauge/densimeter circuit shall be provided with a minimum of two sets of contacts for alarm and indication for the substation's annunciator or flag circuit.
- 6.35.3 The supplier shall wire the SF6 circuit breaker local control circuit, such that in the event of a gas leakage or drop in gas pressure, the SF6 circuit breaker will trip and lockout.
- 6.35.4 A set of normally closed contacts shall be provided in the circuit breaker mechanism control box for the low gas trip circuitry.
- 6.35.5 The SF6 circuit breaker shall trip and lockout before the minimum safe SF6 gas pressure is reached.
- 6.35.6 In terms of the Occupational Health and Safety Act No 85 of 1993. Code 1704 (pressure vessels) the successful tenderer shall furnish a certificate of manufacture complying with the terms of the Act for the circuit breakers.
- 6.36 INSULATION LEVELS, CREEPAGE DISTANCES AND CLEARANCES**
- 6.36.1 INSULATION LEVELS**
- The rated insulation levels of the AC circuit breakers shall comply with the requirements specified in Table 1.
- 6.36.1.1 Table 1 lists the nominal system voltages present on Transnet freight rail and the required insulation levels as specified in accordance with SANS 1019.

Highest phase-to-phase r.m.s voltage for equipment. (Um)	Nominal system phase-to-phase r.m.s. voltage	Rated lightning impulse withstand voltage peak.	Rated short duration power- frequency withstand r.m.s voltage.
24 kV	22 kV	150kV	50 kV
36 kV	33 kV	200 kV	70 kV
52 kV	44 kV	250 kV	95 kV
72,5 kV	66 kV	350 kV	140 kV
100 kV	88kV	380 kV 450 kV	150 kV 185 kV
145 kV	132 kV	550 kV 650kV	230 kV 275 kV
245 kV	220 kV	850 kV 950 kV	360 kV 395 kV

Insulation levels for highest voltage for equipment $U_m < 100$ kV are based on an earth fault factor equal to $\sqrt{3}$ and for $U_m > 100$ kV an earth fault factor equal to $0,8\sqrt{3}$.
 Where more than one insulation level is given per voltage system, the higher level is appropriate for equipment where the earth fault factor is greater than 1,4

TABLE 1: Standard Voltages and insulation levels in accordance with SANS 1019:2008 [1]

6.36.1.2. For the 25 kV and 50kV single phase ac traction systems the ac high voltage circuit breakers shall be designed to the following nominal system phase to phase r.m.s voltages and withstand insulation levels:

- For the 25 kV (phase to earth) ac traction systems the ac high voltage circuit breakers current transformer shall be rated for a nominal system phase to phase r.m.s voltage of at least 44 kV and designed to withstand the required insulation level for that nominal system voltage.
- For the 50 kV (phase to earth) ac traction systems the ac high voltage circuit breakers shall be rated for a nominal system phase to phase r.m.s voltage of at least 88 kV and designed to withstand the required insulation level for that nominal system voltage.

6.36.2 CREEPAGE DISTANCES

6.36.2.1 The standard creepage distance between phase and earth shall be in accordance with table ii of SANS 60815.

6.36.2.2 For coastal areas and very heavy polluted inland areas the standard creepage distance shall be the very heavy polluted level, i.e. 31mm/kV of the highest r.m.s phase to phase voltage U_m for equipment.

6.36.2.3 For inland areas the standard creepage distance shall be the heavy polluted level, i.e. 25mm/kV of the highest r.m.s phase to phase voltage U_m for equipment.

6.36.3 CLEARANCES

6.36.3.1 The following minimum safety outdoor earth clearances shall be maintained between any live conductor or metal and earthed metal: -

Highest phase to phase r.m.s voltage for equipment.	24kV	36kV	48kV	72kV	100kV	145kV	245kV
Outdoor distance	320mm	430mm	540mm	770mm	1000mm	1450mm	1850mm

6.36.3.2 The following minimum safety clearances shall be maintained between any live conductor or metal and ground surface level: -

Highest phase to phase r.m.s voltage for equipment.	24kV	36kV	48kV	72.5kV	100kV	145kV	245kV
Nominal phase to phase r.m.s system voltage	22kV	33kV	44kV	66kV	88kV	132kV	220kV
Within security fence. (Restricted access way)	2820mm	2930mm	3040mm	3270mm	3500mm	3950mm	4350mm
Outside security fence but within Transnet freight rail's reserve	5200mm	5300mm	5400mm	5700mm	5900mm	6300mm	6700mm
Outside Transnet freight rail's reserve	5500mm	5500mm	5500mm	5700mm	5900mm	6300mm	6700mm

6.37 SUPPORT STEELWORK.

- 6.37.1 The circuit breaker shall be provided with its own support steelwork, which shall be hot-dip galvanised in accordance with specification SANS 121 and shall comply to requirements of SANS 1431: for weldable structural steels.
- 6.37.2 Support steelwork exposed to a high pollution/corrosive atmosphere shall be painted in accordance with specification CEE.0045.

7.0 SPECIAL TOOLS, SERVICING AIDS AND MANUALS AND SPARES LISTS.

- 7.1 The tenderers shall submit a separate offer for special tools and servicing aids necessary for the servicing and maintenance of SF6 circuit breakers.
- 7.2 Three copies of instruction/maintenance manuals, spares list's and wiring diagrams of the circuit breakers in accordance with Transnet freight rail's specification CEE.0224. shall be supplied upon delivery.

8.0 TRAINING.

- 8.1 The tenderer shall submit details with the tender of the training courses, which will be conducted by the supplier for the training of Transnet freight rail maintenance staff in the operation and maintenance of the circuit breaker. The courses shall include theoretical as well as practical tuition. The date and venue of this training course shall be arranged with the maintenance manager of the depot. The cost of the training shall be quoted for separately.

9.0 TEST CERTIFICATES.

- 9.1 The manufacture shall make available type test certificates for the equipment (as specified in SANS 62271-100 when required. Routine test certificates shall be supplied with each circuit breaker.

10.0 GUARANTEE AND DEFECTS.

- 10.1 The contractor shall guarantee the satisfactory operation of the circuit breaker supplied and accept liability for maker's defects, which may appear in design, materials and workmanship.
- 10.2 The guarantee period shall expire after: -
A period of 12 months commencing on the date of energising of the circuit breaker.
- 10.3 Any specific type of fault occurring three times within the guarantee period and which cannot be proven to be due to other faulty equipment not forming part of this contract, shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the maintenance manager of the depot and at the cost of the Supplier. If urgent repairs have to be carried out by Transnet freight rail staff to maintain supply during the guarantee period the supplier shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse Transnet freight rail the cost of material and labour.

11.0 INSPECTION.

- 11.1 Transnet freight rail reserves the right to carry out inspection and any tests on the equipment at the works of the supplier/ manufacture.
- 11.2 Arrangements must be made timeously for such inspections to be carried out before delivery of the equipment to the client.

12.0 PACKAGING AND TRANSPORT.

- 12.1 The tenderer shall ensure that the equipment be packed in such a manner that it will be protected during handling and transport.
- 12.2 The tenderer shall provide transport for the delivery of the equipment to the site where required.

13.0 BIBLIOGRAPHY

- [1] SANS 1019: 2008. Edition 2.5

END

SCHEDULE OF REQUIREMENTS
(To be completed by client)

1.0 SYSTEM DETAIL

- 1.1 AC Circuit Breakers: _____ substation/location.
- 1.2 Pollution level: Heavy _____ Very Heavy _____
- 1.2 Quantity of AC Circuit Breakers. _____
- 1.1 Nominal phase to phase voltage for 3 phase system: _____ kV.
- 1.2 Nominal phase to neutral voltage for single phase systems: _____ kV.
- 1.3 Frequency: _____ Hz
- 1.4 Circuit breaker control DC voltage: _____ V
- 1.5 Circuit breakers to be used for the following:
- 3 kV DC Traction substations. Yes/No
 - Distribution substations. Yes/No
 - 25 kV AC Traction substations. Yes/No
 - 50 kV AC Traction substation. Yes/No

DETAIL OF AC CIRCUIT BREAKERS.

- 2.0 Type of circuit breakers required:
- Vacuum: Yes / No
- Gas (SF6): Yes / No _____
- 2.2 Number of circuit breakers required: _____
- 2.3 Number of poles: _____
- 2.4 Rated Voltage: _____ kV
- 2.5 Rated short-circuit breaking current: _____ kA
- 2.6 Rated normal current: _____ Ampere.

END

TECHNICAL DATA SHEET
(To be completed by tenderer)

DETAIL OF CIRCUIT BREAKER

- 1.1 Make and manufacturer _____
- 1.2 Rated Voltage _____ kV.
(Highest rated voltage for equipment)
- 1.3 Rated Insulation level _____ kV.
(Rated lightning withstand Voltage)
- 1.4 Number of Poles: _____
- 1.6 Rated short circuit breaking current _____ kA.
- 1.7 Rated normal current: _____ Ampere.
- 1.6 Breaker operating time:
 - 1.6.1 Closing: _____ ms.
 - 1.6.2 Opening: _____ ms.
- 1.7 Number of operations after which breaker contact maintenance / measurement is required:
 - 1.7.1 Under full load conditions _____
 - 1.7.2 Under fault conditions _____
- 1.8 First Pole to Clear Factor _____
- 1.9 DC control voltage: _____ V

E7/1 (July 1998)

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

(This Specification shall be used in Transnet Contracts)

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ANNEXES

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4. Platform clearances

1 DEFINITIONS

The following definitions shall apply:

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

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

Bond. A short conductor installed to provide electrical continuity.

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

Dead. Isolated and earthed.

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

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

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

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

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

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

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

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

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

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

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

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

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

PART A - GENERAL SPECIFICATION

2. AUTHORITY OF OFFICERS OF TRANSNET

2.1 The Contractor shall co-operate with the officers of Transnet and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of Transnet's railway lines and high-voltage equipment.

2.2 Without limiting the generality of the provisions of 2.1, any duly authorised representative of Transnet, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of Transnet assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

3. CONTRACTOR'S REPRESENTATIVES

3.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Technical Officer with the names, addresses and telephone numbers of the representatives.

3.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

4. OCCUPATIONS AND WORK PERMITS

4.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Technical Officer and at times to suit Transnet requirements.

4.2 The Contractor shall organise the Works in a manner, which will minimise the number and duration of occupations and work permits required.

4.3 Transnet will not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.

4.4 The Contractor shall submit to the Technical Officer, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 14 days before they are required. Transnet does not undertake to grant an occupation or work permit for any particular date, time or duration.

4.5 Transnet reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 4.6 to 4.8.

- 4.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.
- 4.7 When the Contractor is notified less than 2 hours before the schedule starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit.
- 4.8 Reimbursement the Contractor for any loss of working time in terms of 4.6 and 4.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Technical Officer certifies that no other work on which the labour and plant could be employed was immediately available.
- 4.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Technical Officer written confirmation of the date, time and duration of the occupation.
- 4.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of form No. T.1276 signifying that he is aware of the limits within which work may be undertaken. After the work for which the permit was granted has been completed, or when the work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of the T.1276 form, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

5. SPEED RESTRICTIONS AND PROTECTION

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

6. ROADS ON TRANSNET PROPERTY

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

7. CLEARANCES

7.1 No temporary works shall encroach on the appropriate minimum clearances set out in Annexure 1 BE97-01 Sheets 1,2, 3 and 5 of 5.

8. STACKING OF MATERIAL

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

9. EXCAVATION, SHORING, DEWATERING AND DRAINAGE

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

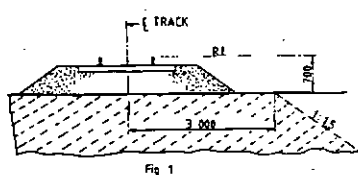


Fig 1

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

9.3 Where required by the Technical Officer, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed obtained, before the excavation is commenced.

9.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Technical Officer.

9.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

10. FALSEWORK FOR STRUCTURES

10.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Technical Officer and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be

signed by a registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.

- 10.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Technical Officer a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Technical Officer to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

11. PILING

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

12. UNDERGROUND SERVICES

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

13. BLASTING

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

- 13.5 The person described in 13.3 will record in a book provided and retained by Transnet the dates and times -

- (i) when each request is made by him to the controlling station for permission to blast;
- (ii) when blasting may take place;
- (iii) when blasting actually takes place; and
- (iv) when he advises the controlling station that the line is safe for the passage of trains.

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

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

14. RAIL TROLLEYS

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

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

15. SIGNAL TRACK CIRCUITS

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

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

16. PENALTY FOR DELAYS TO TRAINS

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

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

17. GENERAL

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

18. WORK ON BUILDINGS OR FIXED STRUCTURES

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

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

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

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

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

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

20. USE OF EQUIPMENT

- 20.1 Measuring Tapes and Devices
- 20.1.1 Measuring tapes may be used near live high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the live equipment.
- 20.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the live high-voltage equipment.
- 20.1.3 Special measuring devices longer than 2 metres such as survey staves and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer in Transnet, but these devices must not be used within 3 metres of live high-voltage equipment in rainy or wet conditions.
- 20.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in 20.1.1 to 20.1.3 are required.

20.1.5 The restrictions described in 20.1.1 to 20.1.3 do not apply on a bridge deck between permanent parapets nor in other situations where a barrier effectively prevents contact with the live high-voltage equipment.

20.2 Portable Ladders

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

21. CARRYING AND HANDLING MATERIAL AND EQUIPMENT

21.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material, which exceeds 2 metres in length, shall be carried completely below head height near live high-voltage equipment. For maximum safety two or more persons so as to maintain it as nearly as possible in a horizontal position should carry such material. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any live high-voltage equipment.

21.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any live high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.

21.3 The presence of overhead power lines shall always be taken account of especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

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

22.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:

(i) If the distance between the point at which the pole is to be erected or removed and the nearest live high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.

(ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with live high-voltage equipment.

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

22.3 The provisions of clauses 22.1 and 22.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

23. USE OF WATER

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

24. USE OF CONSTRUCTION PLANT

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

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

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

26. TRACTION RETURN CIRCUITS IN RAILS

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

27. BLASTING

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

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

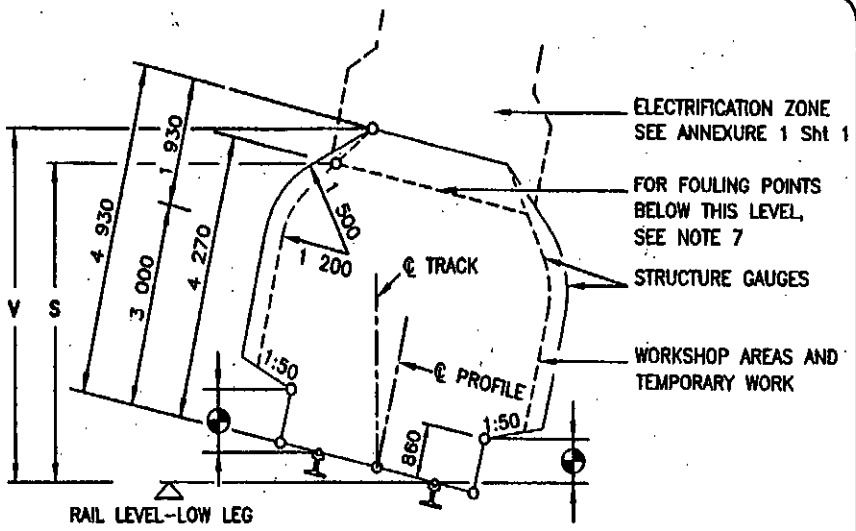
Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by Transnet, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

Such equipment includes: -

- (i) Eskom and municipal equipment;
- (ii) the Contractor's own power supplies; and
- (iii) electrical equipment being installed but not yet taken over from the Contractor.

ANNEXURE 1
 SHEET 2 of 5
 AMENDMENT

VERTICAL CLEARANCES :
 1 065mm TRACK GAUGE



LOCATION	RADIUS (mm)	NOT ELECTRIFIED S (mm)	ELECTRIFIED (PRESENT OR FUTURE)	
			3KV & 25KV V (mm)	50KV V (mm)
ALL AREAS OTHER THAN THOSE INDICATED BY * BELOW	100	4 470	5 050	5 400
	300	4 410	5 020	5 370
	600	4 370	5 000	5 350
	1 000	4 350	4 990	5 340
	1 500	4 310	4 960	5 310
	2 000	4 290	4 940	5 290
	>3 000	4 270	4 930	5 280
* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL IRRESPECTIVE OF RADIUS			5 650	6 000

REMARKS:

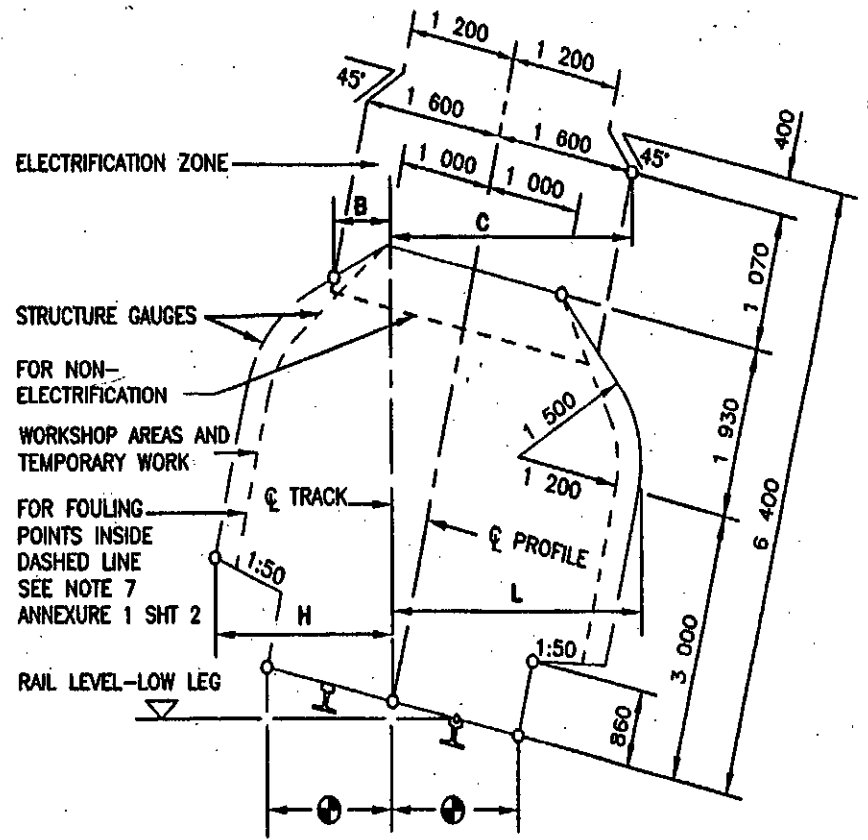
- V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
- S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON-ELECTRIFIED LINES.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- FOR APPLICATION AT CURVES
 - APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
- NEW STRUCTURES: SEE BRIDGE CODE.
- TUNNELS: SEE DRAWING BE 82-35.
- FOULING POINTS: SEE CLAUSE 8.1.
- CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 21,2m VEHICLE BODY LENGTH.
- SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

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ANNEXURE 1
 SHEET 1 of 5
 AMENDMENT

HORIZONTAL CLEARANCES :
 1 065mm TRACK GAUGE



RADIUS (m)	WITH CANT		NO CANT	WITH CANT	
	H (mm)	L (mm)	H & L	B (mm)	C (mm)
90	2 730	3 090	2 780	1 130	2 100
100	2 700	3 030	2 750	1 140	2 050
120	2 650	2 970	2 700	1 160	2 010
140	2 620	2 920	2 660	1 175	1 990
170	2 590	2 870	2 630	1 190	1 970
200	2 570	2 820	2 600	1 205	1 950
250	2 550	2 790	2 580	1 230	1 920
300	2 540	2 760	2 560	1 250	1 900
350	2 530	2 730	2 540	1 270	1 890
400	2 520	2 710	2 530	1 290	1 875
500	2 510	2 680	2 520	1 320	1 850
600	2 500	2 660	2 510	1 340	1 830
800	2 490	2 620	2 500	1 365	1 790
1 000	2 480	2 600	2 490	1 380	1 760
1 200	2 480	2 580	2 490	1 200	1 730
1 500	2 480	2 550	2 480	1 415	1 700
2 000	2 480	2 500	2 480	1 440	1 660
3 000	2 470	2 470	2 470	1 500	1 600
>5 000	2 460	2 460	2 460	1 600	1 600

REMARKS:

1. H AND B IS THE REQUIRED HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
2. L AND C IS THE REQUIRED HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR WORKSHOP AREAS AND TEMPORARY WORK, CLEARANCES H AND L MAY BE REDUCED BY 300mm.
5. Ⓢ SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.
6. ALSO REFER TO REMARKS 4 TO 8 OF ANNEXURE 1 SHEET 2.

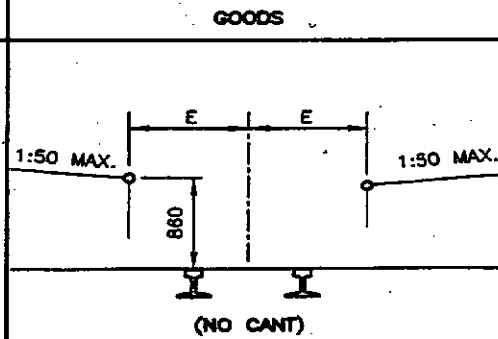
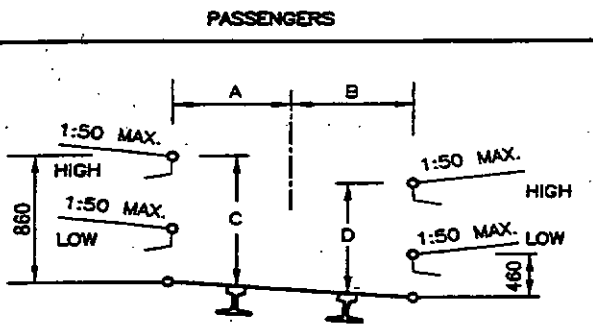
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ANNEXURE 1
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 AMENDMENT

CLEARANCES : PLATFORMS

PLATFORMS : TRACK GAUGE 1 065mm



RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 760
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	880	830	1 600
400	1 520	1 550	880	840	1 590
500	1 520	1 540	880	850	1 580
600	1 520	1 530	870	850	1 570
800	1 520	1 520	860	860	1 560
1 200	1 520	1 520	860	860	1 550
2 000	1 520	1 520	860	860	1 540
3 000	1 520	1 520	860	860	1 530
STRAIGHT	1 520	1 520	860	860	1 520

REMARKS:

1. NO CANT TO BE APPLIED EXCEPT WHEN THE GOODS PLATFORM IS ON A RUNNING LINE.
2. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
3. 8m TO MAIN STATION-BUILDINGS AND 3m TO ALL OTHER STRUCTURES.
4. TOLERANCES : SEE CLAUSE 8.0.10.

STRUCTURES ON PLATFORMS : 1 065mm AND 610mm TRACK GAUGE

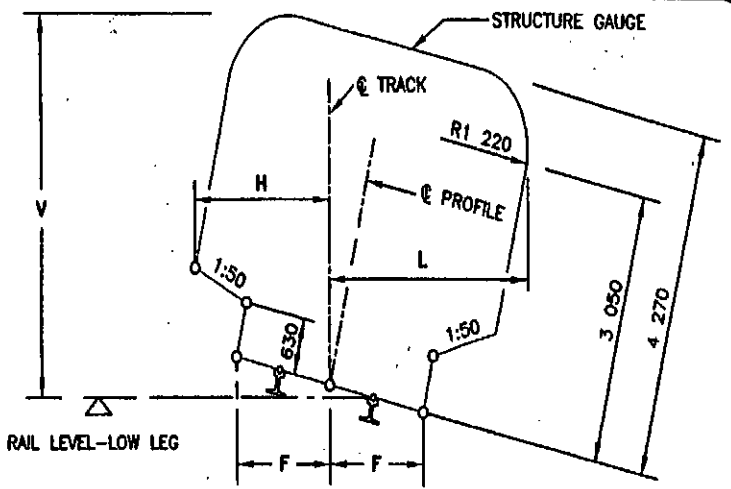


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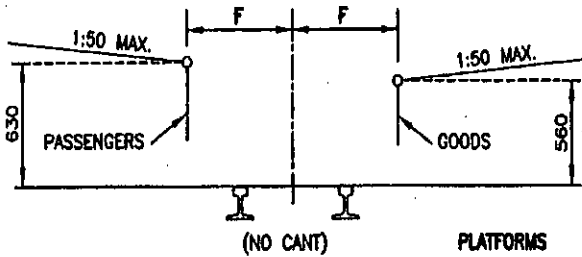
CLEARANCES : 610mm TRACK GAUGE

RADIUS (m)	WITH CANT		NO CANT	V (mm)
	H (mm)	L (mm)	H & L (mm)	
50	2 370	2 490	2 400	4 320
70	2 310	2 420	2 330	4 310
100	2 260	2 370	2 280	4 310
140	2 220	2 340	2 250	4 310
200	2 200	2 300	2 220	4 300
300	2 190	2 270	2 200	4 300
500	2 180	2 230	2 190	4 290
700	2 170	2 200	2 180	4 270
1 000	2 170	2 170	2 170	4 270
>2 000	2 160	2 160	2 160	4 270



CLEARANCES

RADIUS (m)	F (mm)
50	1 550
60	1 510
80	1 460
100	1 430
120	1 410
140	1 390
170	1 380
200	1 370
250	1 360
300	1 350
600	1 330
1 000	1 320
>2 000	1 320
STRAIGHT	1 310



PLATFORMS

REMARKS:

- H IS THE MINIMUM HORIZONTAL CLEARANCE ON THE OUTSIDE OF THE CURVE BASED ON MINIMUM CANT.
- L IS THE MINIMUM HORIZONTAL CLEARANCE ON THE INSIDE OF THE CURVE BASED ON MAXIMUM CANT.
- V IS THE MINIMUM VERTICAL CLEARANCE.
- FOR APPLICATION AT CURVES:
 - APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 2m BEYOND THE ENDS OF THE CIRCULAR CURVE.
 - REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
 - FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 18m ALONG STRAIGHTS.
- INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
- ALSO REFER TO REMARKS 5, 6 AND 7 OF ANNEXURE 1 SHEET 2.
- CLEARANCES ARE BASED ON 9 700mm BOGIE CENTRES AND 13 700mm VEHICLE BODY LENGTH.
- SEE ANNEXURE 1 SHEET 3 FOR STRUCTURES ON PLATFORMS.

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PART 4: SITE INFORMATION

1. Description of the Site and its surroundings

1.1. General description

The work is to be carried out at Transnet Freight Rail, Leeustroom Substation near Kroonstad

1.2. Access Limitations

The areas are restricted and the contractor must ensure he complies with the regulations of Transnet in every way. The Contractor and/or any Sub-Contractors shall be required to arrange with Transnet Freight Rail Real Estate Project Manager, Mr Alton Mashibini, contact number: 083 447 8944, for permission to enter the restricted area.

1.3. Ground conditions in areas affected by work in this contract

None

1.4. Hidden and other services within site

No hidden services