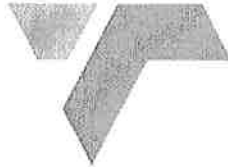


TRANSNET



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

NEC3 Engineering & Construction Short Contract
(ECSO)

RFQ No. ERAC NS2286 16262CIDB

The refurbishment, supply and install of equipment on 11kV H-frames at various sites under the control of the Depot Engineer, Koedoespoort.

Opening on:

10th December 2014

Closing on:

Thursday, 8th January 2015
(10h00)

Validity period ending on: 2nd April 2015

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Part T1: Tendering Procedures

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PART T1: TENDERING PROCEDURES

T1.1 TENDER NOTICE AND INVITATION TO TENDER

RFQ No. ERAC NS2286 16262CIDB

Transnet SOC Limited trading as Transnet Freight Rail invites tenders for the refurbishment, supply and install of equipment on 11kV H-frames at various sites under the control of the Depot Engineer, Koedoespoort.

Respondents should have a CIDB contractor grading of 2E or higher.

On or after Wednesday, 10th December 2014, the RFQ documents may be inspected at, and are obtainable from the office of the Transnet Freight Rail Advice Centre, Inyanda House 1, Ground Floor, 21 Wellington Road, Parkton, Johannesburg, **free of charge** and will only be available for collection between 09:00 and 15:00 from Wednesday, 10th December 2014 until Wednesday, 17th December 2014.

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

Mr. Nico Swart

Tel. No. 012 315 3083

Fax.: 012 315 2138

E-mail: nico.swart3@transnet.net

FORMAL BRIEFING

A **compulsory information briefing session** will be held at 10h00 on **Thursday, 18th December 2014** in the Jacaranda boardroom, 3rd floor, Nzasm building, c/o Paul Kruger and Minnaar streets, Pretoria. A site visit will be conducted after the briefing session. Respondents shall be responsible for their own travel arrangements and cost regarding the briefing session and site inspections.

Contact person: **Ms Boitumelo Moloko at tel. No 012 842 5581 or cell No. 083 307 9534.**

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

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

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

- Respondents failing to attend the compulsory RFQ briefing/site inspection will be disqualified.
- Respondents without a valid RFQ document in their possession will not be allowed to attend the RFQ briefing/site visit.
- The briefing session will start punctually as indicated above and information will not be repeated for the benefit of Respondents arriving late.

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

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

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

CLOSING DATE AND TIME: Thursday, 8th January 2015, 10h00

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

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

A) Responses to RFQ

Responses to this RFQ tender must not include documents or reference relating to any other Tender or proposal. Any additional conditions must be embodied in an accompanying letter. Responses are to be attached to the tender documents. Any additional conditions must be embodied in an accompanying letter. Alterations, additions or deletions must not be made by the Respondent to the actual tender documents. Tenders submitted by Respondents must be neatly bound and the inclusion of loose documents must be avoided.

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

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

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

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it would therefore prefer to do business with local business enterprises who share these same values. Transnet will accordingly allow a "preference" to companies who provide a valid B-BBEE Verification Certificate. All procurement transactions will be evaluated accordingly.

1.1 B-BBEE Scorecard and Rating

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

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

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

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

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

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

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

2.0 Communication

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

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

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

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

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

3.0 Tax Clearance

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

4.0 VAT Registration

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

5.0 Legal Compliance

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

6.0 Changes to Tenders

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

7.0 Pricing

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

8.0 Price Subject to Confirmation

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

9.0 Negotiations

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

10.0 Binding Offer

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

11.0 Disclaimers

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

- modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
- reject any Tender which does not conform to instructions and specifications which are detailed herein;
- disqualify Tenders submitted after the stated submission deadline;
- not necessarily accept the lowest priced Tender;
- reject all Tenders, if it so decides;
- place an order in connection with this Tender at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier/Service Provider; or make no award at all.
- Transnet reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another bidder.
- Transnet reserves the right to lower the threshold for Technical by **10%** [ten percent] if no Bidders pass the predetermined minimum threshold.
- Transnet reserves the right to accept the whole or any part of a tender. Transnet also reserves the right to negotiate terms and conditions with all, or a short listed group of contenders, or the preferred tenderer, should it be deemed necessary.

12.0 Transnet's supplier integrity pact

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

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

YES	<input type="checkbox"/>
-----	--------------------------

NO	<input type="checkbox"/>
----	--------------------------

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

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

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

CONFIDENTIALITY IS GUARANTEED

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SUPPLIER CODE OF CONDUCT

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

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

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

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

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

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

c) *Transnet's relationship with Suppliers requires us to clearly define requirements, exchange information and share mutual benefits.*

- Generally, Suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our Suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
 - ✦ misrepresentation of their product [e.g. origin of manufacture, specifications, intellectual property rights];
 - ✦ collusion;
 - ✦ failure to disclose accurate information required during the sourcing activity [e.g. ownership, financial situation, B-BBEE status];
 - ✦ corrupt activities listed above; and
 - ✦ harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the Supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respect.

Conflicts of interest

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

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

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

SIGNED at _____ on this _____ day of _____ 20____

SIGNATURE OF WITNESS

SIGNATURE OF RESPONDENT

Part T1.2: Tender Data

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

F1.6 The competitive negotiation procedure may be applied

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

F.2.1.1 The following Tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a Tenderer grading designation equal to or higher than a Tenderer grading designation determined in accordance with the sum tendered for a 2EP class of construction work, are eligible to submit tenders.

- a) Tenderers who have a Tenderer grading designation equal to or higher than a Tenderer grading designation determined in accordance with the sum tendered for a 2EP class of construction work; and

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 Tenderer grading designation in the 2EP class of construction work; and
3. the combined Tenderer grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Tenderer grading designation determined in accordance with the sum tendered for a 2EP class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Pre-qualifying criteria:

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

Criterion/Criteria	Explanation
Administrative responsiveness	<p>Completeness of response and mandatory returnable documents.</p> <ul style="list-style-type: none"> • Was the bid lodge on time • Were all mandatory schedules completed and returned • Verify the validity of all returnable documents, i.e.: <ol style="list-style-type: none"> 1. A valid Letter of Good Standing with the Compensation Commissioner issued by the Department of Labour relevant to scope of works. 2. An active CIDB certificate for 2EP or higher.

<p>Substantive responsiveness</p>	<p>Prequalification criteria, if any, must be met and whether the Bid materially complies with the scope and/or specification given.</p> <ul style="list-style-type: none"> • Whether the bid contains a completed and signed price offer with a completed price list. • Whether all technical qualifications and demonstrated experience of key staff in relation to scope of work have been met. (Minimum N3 with trade test or higher – submit CV with certified copies of qualification certificates) • Whether the clause by clause statement of compliance to the General conditions of Contract, Works Information and various technical specifications and general specifications have been completed.
<p>Functionality Threshold</p>	<p>As prescribed in terms of the Preferential Procurement Policy Framework Act (PPPFA), Act 5 of 2000 and its Regulations, Tenderers are to note that functionality is included as threshold with a prescribed percentage threshold of 60%, i.e.:</p> <ul style="list-style-type: none"> • Practical previous experience in installation and testing of electrical equipment or the executing of similar projects. • Technical capacity and resources (reliability, durability, method statement relevant to scope of work, • Risk and Safety Plan that is relevant to the scope of work will be considered as part of the technical evaluation. (safety characteristics). • Delivery period (bar chart with method statement / approach paper)
<p>Final weighted evaluation based on 80/20 preference point system</p>	<ul style="list-style-type: none"> • Pricing and price basis [firm] - whilst not the sole factor for consideration, competitive pricing and overall level of unconditional discounts¹ will be critical • B-BBEE status of company - Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution.

Only those Tenderers who attain the minimum number of evaluation points (60 points) for functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from further consideration.

Maximum number of tender evaluation points		
Quality criteria	Sub-criteria	Maximum number of points
Previous experience in the relevant field of similar projects		40
Risk, health and safety plan relevant		20

to scope of work (Safety characteristics)		
Technical capacity and resources, reliability, durability, method statement, etc.		20
Delivery period or period for completion		20
Maximum possible score for quality		100

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

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

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

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

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

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

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted,

to accept full responsibility and liability that the alternative offer complies in all respects with the *Employer's* standards and requirements.

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

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

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

If posted, the envelope must be addressed to:

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

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

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

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

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

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

Identification details:

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

- (a) Name of Tenderer (Insert company Name)
- (b) Contact person and details (Insert details)
- © The Tender Number (Insert)
- (b) Description of work (Insert)
- (c) Closing date of tender (Insert)

NO LATE TENDERS WILL BE ACCEPTED

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

F.2.13.9 Telephonic, telegraphic, telex, 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 17 weeks (2nd April 2015).

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

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 or IRBA B-BBEE accreditation certificate.
3. A Certificate of Registration issued by the Construction Industry Development Board or a copy of the application Form for registration in terms of the construction Industry Development Board Act (Form F006) .

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: 12:00 on the closing date of tender.
- Location: **Transnet Freight Rail Acquisition Council, Ground Floor, Inyanda House,
21 Wellington Road, Park Town, JOHANNESBURG**
-

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

The financial offer will be scored using Formula 2 (option 1) in Table F.3.11.3 where the value of W_1 is:

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

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

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

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

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

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

1 Additional tender conditions:

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

2 The tenders shall be completed in black ink only.

3 Tender submissions

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

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

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

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

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

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

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

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

- 3.7 Tenderers shall submit descriptive literature consisting of detailed technical specifications, general constructional details and principal dimensions, together with clear illustrations of the equipment offered.
- 3.8 During the duration of the contract period, the successful Tenderer shall be required to inform the Employer / Deputy of any changes to equipment offered and submit detailed information on replacement equipment for approval prior to it being used on this contract.
- 3.9 Tenderer shall submit equipment type test certificates as specified on the contract. These shall be in English or certified translation.
- 3.10 The Tenderer shall supply a site diary and site instruction books, both books shall be of triplicates carbon copies.

4.0 Risk and safety plan required:

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

4.1 Part A: Health, Risk and safety Plan

Education and Training

- Induction training (Construction Regulation 7(9)) Safety talk
- Site Specific Training.
- SHE rep.

Health and Safety Communications

- Safety/Toolbox talks.
- Incident Recall

Incident management

- Substance abuse testing (logbook and registers)
- Health and safety

a attach proof of medical surveillance of all employees.

b evaluation certificate of employee's physical and psychological fitness.

c A qualified first aider (attach certificate)

Project Security

- Security risks identified
- Access control.

Safe Working Procedures and Methods

- Risk assessment
- a a plan on how risk assessment plan will be conducted
- b procedures and methods to address the identified risks
- Safe Operating Procedures.
- Task observations

- Substance abuse testing
- Personal Protective Equipment and Clothing

- Full personal protective equipment
 - a work suit
 - b Safety boots
 - c safety gloves
 - d safety goggles
 - e safety harness
 - f safety helmet

4.2 Part B: Technical capacity and resources including plan and equipment of the executing of the work:

Minimum requirements:

- 1 Availability of transport to site:
 - a Transportation for employee's: any mode of transport that is safe for transporting employees.
 - b loading capacity of truck: min of a 5 ton truck.
- 2 Skilled and un-skilled labour:
 - a Minimum qualification of N3 with trade test or higher
 - b Supply certificates for personnel with technical responsibilities
 - c Provide CV's for skilled and unskilled labourers.
- 3 Availability of Tools/material
 - a Shovels, spades and compactor
 - b Grinder 230mm
 - c Drill and drill bits
 - d welding machine
 - e Hand tools
 - f Generator
 - g Step ladder +/-10m

4.3 Part C: Experience

Refer to returnable schedules, i.e. "Tenderers Experience" to be completed.

Approximate duration of contract: Approximate 8 weeks from date of award. (40 working days).

4.4 Stage Two: Evaluation and Final Weighted Scoring

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

Evaluation Criteria	RFQ Reference
<ul style="list-style-type: none"> • Commercial offer 	<i>Clause F3.11.3</i>

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

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

Where:

Ps = Score for the Bid under consideration

Pt = Price of Bid under consideration

$Pmin$ = Price of lowest acceptable Bid

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

- B-BBEE - current scorecard

4.5 STAGE FIVE: Post Tender Negotiations (if applicable)

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

4.6 Banking Details

BANK: _____
BRANCH NAME / CODE: _____
ACCOUNT HOLDER: _____
ACCOUNT NUMBER: _____

4.7 Company Registration

Registration number of company / C.C. _____
Registered name of company / C.C. _____

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

4.8 Disclosure of Prices Quoted

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

YES NO

4.9 Returnable Documents

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

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

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



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

Mandatory Returnable Documents		Submitted [Yes or No]
Part C3 :	signed and completed Form of Offer and Acceptance and Price list	
Part T2.2:	Completed returnable schedules: Certificate of attendance of site meeting/RFQ briefing	
Part T2.2:	Returnable Schedules: Clause by clause statement of compliance to the General Conditions of contract, Works information, Particular specification, technical specifications and General specifications.	
	<ul style="list-style-type: none"> A valid letter of Good Standing with the Compensation Commissioner issued by Department of Labour relevant to scope of work. An active CIDB grading certificate of 2E or higher. 	

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

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

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

Essential Returnable Documents		Submitted [Yes or No]
Part T1: Tendering Procedures: Notice to Tenderers		
-	Valid and original B-BBEE Verification Certificate or certified copy thereof [Large Enterprises and QSEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero for preference	
-	Valid and original B-BBEE certificate/sworn affidavit or certified copy thereof from auditor, accounting officer or SANAS accredited Verification Agency [EMEs] Note: failure to provide a valid B-BBEE Verification Certificate at the closing date and time of the RFQ will result in an automatic score of zero being allocated for preference	
-	In the case of Joint Ventures, a copy of the Joint Venture	

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

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Essential Returnable Documents	Submitted [Yes or No]
Supplier Declaration form	
Compulsory enterprise questionnaire	
Curriculum vitae of key personnel	
Contractual safety clauses which will form part of any resulting contract	
Proposed amendments and qualifications	
Labour payment schedule	
Part C3.1: Contract Data : General Conditions of Contract (NEC3 ECSC3), Works Information and Particular specification	
Part C3.2: Pricing Data: Activity list/BOQ/Price list	

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Part T2: Returnable Documents/Schedules

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PART T2: RETURNABLE DOCUMENTS / SCHEDULES

T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

1.0 Returnable documents required for tender evaluation purposes

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

T2.2 RETURNABLE SCHEDULES

The tenderer must complete the following returnable schedules:

2.0 Returnable Schedules required for tender evaluation purposes

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

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3.0 Returnable Schedules that will be incorporated into the contract

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

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Part T2: Returnable Schedules

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CERTIFICATE OF ATTENDANCE AT INFORMATION BRIEFING SESSION/SITE INSPECTION

This is to certify that

_____ (Tenderer) of _____

_____ (Address) _____

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

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

Name: _____ Signature _____

Capacity: _____

Name: _____ Signature _____

Capacity _____

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

Briefing session:

Name: _____ Signature _____

Capacity: _____ Date and time _____

Site visit:

Name: _____ Signature _____

Capacity: _____ Date and time _____

RESOLUTION OF BOARD OF DIRECTORS

Name of firm _____

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

FULL NAME(S)

SIGNATURE

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

Confirm: Date _____

FULL NAME _____

CHAIRMAN

FULL NAME _____

SECRETARY

Certified true copy

SIGNED AT _____ ON THIS _____ DAY OF _____

20 _____

SCHEDULE OF THE TENDERER'S EXPERIENCE

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

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

Date _____

Name _____

Position _____

Tenderer _____

SCHEDULE OF PROPOSED SUBCONTRACTORS

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

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

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

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

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Signed _____ Date _____

Name _____ Position _____

Tenderer _____

SCHEDULE OF PLANT AND EQUIPMENT

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

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

RECORD OF ADDENDA TO TENDER DOCUMENTS

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

	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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SUPPLIER DECLARATION FORM

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

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

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

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

Company Trading Name						
Company Registered Name						
Company Registration Number Or ID Number If A Sole Proprietor						
Form of entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
VAT number (if registered)						
Company Telephone Number						
Company Fax Number						
Company E-Mail Address						
Company Website Address						

Bank Name	Bank Account Number			
Postal Address				Code
Physical Address				Code
Contact Person				
Designation				
Telephone				
Email				
Annual Turnover Range (Last Financial Year)	< R5 Million	R5-35 million	> R35 million	
Does Your Company Provide	Products	Services	Both	
Area Of Delivery	National	Provincial	Local	
Is Your Company A Public Or Private Entity	Public		Private	
Does Your Company Have A Max Directive Or IRP30 Certificate	Yes	No		
Main Product Or Service Supplied (E.G.: Stationery/Consulting)				
BEE Ownership Details				
% Black Ownership	% Black women ownership	% Disabled person/s ownership		
Does your company have a BEE certificate	Yes	No		
What is your broad based BEE status (Level 1 to 9 / Unknown)				
How many personnel does the firm employ	Permanent	Part time		
Transnet Contact Person				
Contact number				
Transnet operating division				

Duly Authorised To Sign For And On Behalf Of Firm / Organisation			
Name		Designation	
Signature		Date	

Stamp And Signature Of Commissioner Of Oath			
Name		Date	
Signature		Telephone No.	

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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:

- 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

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

Name of sole proprietor, partner, manager, shareholder stakeholder or director, principal or	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 authorized 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
- iv) 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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CURRICULUM VITAE OF KEY PERSONNEL

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

TRANSNET SOC LIMITED / CONTRACTORS / SUB-CONTRACTORS

CONTRACTUAL SAFETY CLAUSES WHICH WILL FORM PART OF ANY RESULTING CONTRACT

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

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

Contractor himself can be made aware of all the clauses in this contract pertaining to health and safety.

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

- 22) **A letter of good standing in terms of Section 80 (Employer to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Disease Act 1993 (Act 130 of 1993) must also be furnished.**
- 23) All clauses in the contract pertaining health and safety form an integral part of the contract and if not complied with may be construed as breach of contract.

*As applicable

Tenderer OH & S Management System Questionnaire

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

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

If yes provide a copy		
<ul style="list-style-type: none"> - Are Risk Assessments conducted and appropriate techniques used? - If yes provide details 		
3. OH&S Training		
Describe briefly how health and safety training is conducted in your company:		
<ul style="list-style-type: none"> - Is a record maintained of all training and induction programs undertaken for employees in your company? - If yes provide examples of safety training records 		
4. Health and Safety Workplace Inspection		
<ul style="list-style-type: none"> - Are regular health and safety inspections at worksites undertaken? - If yes provide details 		
<ul style="list-style-type: none"> - Is there a procedure by which employees can report hazards at workplaces? - If yes provide details 		
5. Health and Safety Consultation		
<ul style="list-style-type: none"> - Is there a workplace health and safety committee? 		
<ul style="list-style-type: none"> - Are employees involved in decision making over OH&S matters? - If yes provide details 		
<ul style="list-style-type: none"> - Are there employee elected health and safety representatives? - Comments 		
6. OH&S Performance Monitoring		
<ul style="list-style-type: none"> - Is there a system for recording and analysing health and safety performance statistics including injuries and incidents? - If yes provide details 		
<ul style="list-style-type: none"> - Are employees regularly provided with information on company health and safety performance? - If yes provide details 		
Is company registered with workmen's compensation and up to date?		

- If yes provide proof of letter of good standing		
- Has the company ever been convicted of an occupational health and safety offence? - If yes provide details		

Safety Performance Report

Monthly DIFR for previous months

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

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

Signed
(Tenderer)

PROPOSED AMENDMENTS AND QUALIFICATIONS

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

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

Page	Clause or item	Proposal
"PREVIEW COPY ONLY"		

Signed _____

Date _____

Name _____

Position _____

Tenderer _____

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

LABOUR PAYMENT SCHEDULE

TENDERERS ARE REQUIRED TO COMPLETE THE FOLLOWING SCHEDULE:

DAY LABOUR (IF REQUIRED)

Skilled Hour _____
Unskilled Hour _____
Labourer Hour _____
Driver/Operator Hour _____
% Profit on Material _____

TRANSPORT AND MACHINERY

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

8. Full details of any other charges:

TENDERER: _____

DATE: _____

Part C1: Agreement & Contract Data

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Short Contract

A contract between Transnet Freight Rail, A division of Transnet SOC Limited

and

for The refurbishment, supply and install of equipment on 11kV H-frames at Baviaanspoort, Karneeldrift, Dooispoort and Leeufontein sites under the control of the Depot Engineer, Oerleespoort.

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Conditions of contract	CC1

Contract Data

The Employer is

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

The works are: THE REFURBISHMENT, SUPPLY AND INSTALL OF EQUIPMENT ON 11KV H-FRAMES AT VARIOUS SITES UNDER THE CONTROL OF THE DEPOT ENGINEER, KOEDOESPOORT

The sites are BAVIAANSPOORT, LALEELDRIFT, DOORNPOORT AND LEEUFONTEIN SITES

The starting date is TBA.....

The completion date is TBA.....

The period for reply is Two weeks.....

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

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

The delay damages are R2,000 per day.....

The assessment day is the 13th of each calendar month.....

The retention is 10% on the total value of the contract.....

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

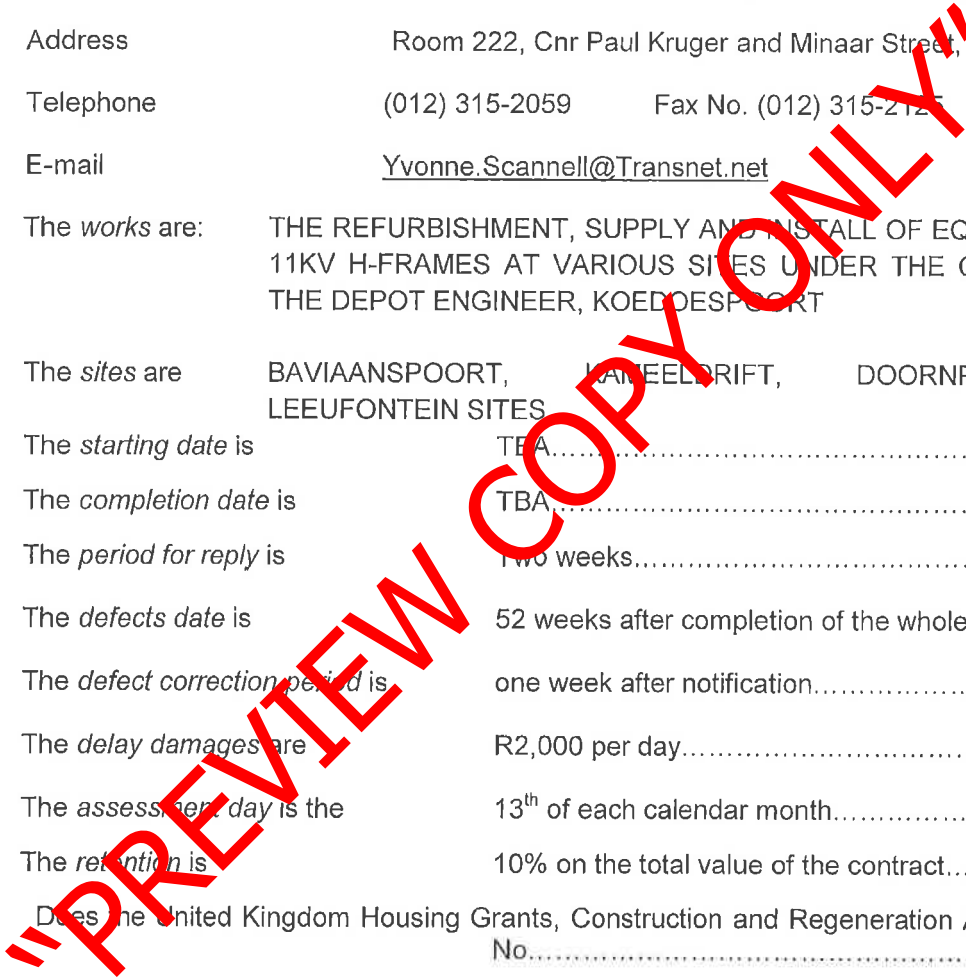
The Adjudicator is:

Name To be advised if disputes arise

Address

Telephone Fax No.

E-mail



Contract Data

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

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

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

The minimum amount of cover for the third insurance stated in the Insurance Table is:
>R25,000.00 (Limited to R10, 000.00 for any one event).....

The minimum amount of cover for the fourth insurance stated in the Insurance Table is:.....
Not Applicable.....

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

The tribunal is: **Arbitration**.....

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

The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013) and the following additional conditions.....

As mentioned in paragraph 1.0 (Contractual obligations).....

1.0 CONTRACTUAL OBLIGATIONS (A)

1.1 This project specification covers Transnet Freight Rail's requirements for the refurbishment, supply and install of equipment on 11kV H-frames at Bavianspoort, Kameeldrift, Doornspoort and Leeufontein sites under the control of the Depot Engineer, Koedoespoort.

1.2 The Contractor shall not make use of any Sub-Contractor to perform the works or parts thereof without prior permission from the Employer's Deputy.

1.3 The Contractor shall comply with all applicable legislation and Transnet safety requirements adopted from time to time and instructed by the Employer's Deputy / Supervisor. Such compliance shall be entirely at his 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).

Engineering and Construction

- 1.4.3 The explosive Act No. 26 of 1956 (as amended). The Contractor shall, when applicable, furnish the Employer's Deputy / Supervisor with copies of the permits authorising him or his employees, to establish an explosives magazine on or near the site and to undertake blasting operations in compliance with the Act.
- 1.4.4 The Contractor shall comply with the current Transnet Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Employer's Deputy / Supervisor.
- 1.4.5 The Contractor shall comply with the current Specification for Work On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment – E7/1, if applicable, and shall take particular care of the safety of his employees on or in close proximity to a railway line during track occupations as well as under normal operational conditions.
- 1.5 The Contractor's Health and Safety Programme shall be subject to agreement by the Employer's Deputy / Supervisor, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- 1.6 In addition to compliance with clause 1.4 hereof, the Contractor shall report all incidents in writing to the Employer's Deputy / Supervisor. Any incident resulting in the death of or injury to any person on the works shall be reported immediately of its occurrence and any other incident shall be reported within 24 hours of its occurrence.
- 1.7 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- 1.8 The Contractor shall ensure that a Safety Representative is at site at all times. All safety measures prescribed by Transnet Freight Rail – Electrical Safety Instructions and the "Occupational Health and Safety Act 1993 ("Act 85 of 1993") associated with working on a project of this nature shall be adhered to.
- 1.9 A penalty charge of R2,000 per day per event for late completion is applicable.
- 1.10 The Contractor shall supply a **site diary** (with triplicate pages). This book shall be used to record any unusual events during the period of the work. Any delays to the work shall also be recorded such as delays caused by poor weather conditions, delays caused by permits being cancelled etc. The appointed Employer's Deputy or Supervisor must countersign such delays. Other delays such as non-availability of equipment from 3rd party suppliers must be communicated to the Employer's Deputy or Supervisor in writing.
- 1.11 The Contractor shall supply a **site instruction book** (with triplicate pages). This book shall be used to record any instructions to the Contractor regarding problems encountered on site – for example the quality of work or the placement of equipment. This book shall be filled in by the Employer's Deputy or Supervisor and must be countersigned by the Contractor.
- 1.12 Both books mentioned in 1.10 and 1.11 shall be the property of Transnet Freight Rail and shall be handed over to the Employer's Deputy or Supervisor on the day of energising or handing over.
- 1.13 **10% Retention money** will be retained and will be released 12 months after the actual completion date of the contract.

Engineering and Construction

- 1.14 The successful Contractor shall provide a Gantt or a similar chart showing when the works will be done and energised. A final chart should be submitted to the employer's deputy or Supervisor within 14 days after the award has been made to the successful Contractor.
- 1.15 All processes or the manufacture and assembly of the product components must be subjected to a quality assurance system.
- 1.16 The Contractor will assume full responsibility for assuring that the equipment utilised meet the requirements of Transnet Freight Rail for function, performance, and reliability, including purchased products from 3rd part suppliers/Manufacturers.
- 1.17 The onus is on the manufacturer to prove the effectiveness of their system to TFR during the production of the prototype.
- 1.18 The Contractor shall prove to Transnet Freight Rail that his equipment or those supplied from 3rd party suppliers/manufacturers confirms to Transnet Freight Rail specifications.
- 1.19 ISO 9000 to 9004 inclusive (SABS 0157 parts 1 to 4) must be regarded as a guideline, where applicable.
- 1.20 The Contractor will remain liable for contractual delivery dates irrespective of deficiencies discovered during workshop inspections.
- 1.21 **Day:** Day is a calendar day and where a specific number of days is allowed in the Contract for the performance of any act or is stipulated for the extinction of any right or the duration of any event or circumstance, public holidays and the annual Christmas break from 16 December to 5 January (both days included) is excluded from the calculation of the number of days concerned.
- 1.22 **Intellectual property:** Intellectual property rights (including patents, copyright, trade marks etc) rests with the party owning them and the Contractor indemnifies the Employer from any liability arising from infringement of such intellectual property rights.
- 1.23 **Assignment & cession:** Neither the Contractor nor the Employer may, without the written consent of the other, assign the Contract or any part thereof or any obligation under the Contract or cede any right or benefit thereunder.
- 1.24 **Non-Waiver:** No grant by the Employer or the Contractor to the other of any concession, waiver, condonation or allowance is, in respect of any specific event or circumstance other than that in respect of which the grant was made to constitute a waiver of the rights of the grantor in terms of the Contract or an *estoppel* of the grantor's right to enforce the provision of the Contract.
- 1.25 **Limitation of the authority of the Project Manager:** The Project Manager is authorised to agree increases to the contract value to a maximum of R_____ without referring it to the management of the Employer.
- 1.25.1 If referral to management is necessary, a period of 6 weeks over and above any times allowed in the Contract is to be provided.

Contract Data

The Contractor's Offer

The Contractor is:

Name

Address

Telephone Fax:

E-mail

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

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

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

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

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

Signed on behalf of the Contractor

Name

Position

Signature Date

The Employer's Acceptance

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

Signed on behalf of the Employer

Name

Position

Signature Date

Part C2: Pricing Data

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Part C2:Pricing Data
Part C2.1: Price Instructions**2.0 PRICING INSTRUCTIONS**

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

Engineering and Construction

2.14 Any error in the invoiced amount shall be corrected and reflected in the following monthly statement by the Contractor.

2.15 All invoices must reflect the following information:

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

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

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

2.18 INVOICE INFORMATION

All invoices must reflect the following information: -

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

2.19 For technical and delivery matters contact the Employer's deputy, Transnet Freight Rail, appointed as the Transnet technical representative, Sithabile Khomo, cell No. 0884234 5170 or tel. No. 012 842 6479.

2.20 PRICE STRUCTURE AND PAYMENT

Only invoices with the organization's letter head and correct VAT registration number will be accepted for payment. Payment will be effected in accordance with Transnet Freight Rail's procurement terms and conditions.

Please note: The Contractor must indicate on his Tax Invoice Transnet Freight Rail's reference number, description of the work, Labour amount, material amount, kilometres travelled and the amount claimed (attach copy of material tax invoice) and a final payment will be made.

2.21 VAT

Rates shall be quoted exclusive of Value Added Tax. Provision is made in the Summary of Prices for the lump-sum addition of Value Added Tax.

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

Item	Description	Qty	Unit	Rate	Price
Kameeldrift					
1	Supply and install 50mm ² Cu wire	10	M		
2	Supply and install 11kV lightning arrestors	6	Ea		
3	Supply and install 11kV link switch	2	Ea		
4	Supply and install 11kV fuse carrier and holder together with drop out fuse link rated 2A	3	Ea		
5	Supply and install PVC steel wire 97mm ² .	20	Ea		
6	Supply and install solid & chemically coated earthing spike 1.2m long.	2	Sets		
7	Supply and install 11kV, 16kVA transformer	1	Sum		
8	Supply and install lug 160mm ² & 13.5mm ² wam bolts & nuts	3	Sets		
9	Supply and install an anti-climbing device	2	Sum		
10	Supply and install space GAP	1	Ea		
11	70mm ² insulated copper cable with 70mm ² lugs x 3	10	M		
12	Supply and install cable 50mm ² .	15	M		
13	Clean and paint structure and control box	1	Sum		
14	Supply and install cable cleats	8	Ea		
15	Armed security	1	Sum		
16	P's and G's	1	Sum		
A	Subtotal (Excl. VAT) =				R
B	VAT (14%) of A =				R
C	Gross Total (A+B) =				R

Item	Description	Qty	Unit	Rate	Price
Baviaanspoort					
1	Supply and install 50mm ² Cu wire	10	M		
2	Supply and install 11kV lightning arrestors	6	Ea		
3	Supply and install 11kV link switch	2	ea		
4	Supply and install 11kV fuse carrier and holder together with drop out fuse link rated 2A	6	Ea		
5	Supply and install PVC steel wire 97mm ² .	20	Ea		
6	Supply and install solid & chemically coated earth spike 1.2m long.	2	Sets		
7	Supply and install lug 160mm ² & 13.5mm ³ wam bolts & nuts	1	Sets		
8	Supply and install an anti-climbing device	2	ea		
9	Supply and install spark GAP	1	sum		
10	Clean and paint structure and control box.	1	sum		
11	Supply and install LT cable 50mm ²	15	m		
12	Supply and install cable cleats	7	Ea		
13	Armed security	1	Sum		
14	P's and G's	1	Sum		
A	Subtotal (Excl. VAT) =				R
B	VAT (14%) of A =				R
C	Gross Total (A+B) =				R

Item	Description	Qty	Unit	Rate	Price
Leeufontein					
1	Supply and install 50mm ² Cu wire	20	M		
2	Supply and install 11kV lightning arrestors	6	Ea		
3	Supply and install 11kV link switch	2	ea		
4	Supply and install 11kV fuse carrier and holder together with drop out fuse link rated 2A	6	Ea		
5	Supply and install PVC steel wire 97mm ² .	20	Ea		
6	Supply and install solid & chemically coated earth spike 1.2m long.	2	Sets		
7	Supply and install lug 160mm ² & 13.5mm ³ wam bolts & nuts		Sets		
8	Supply and install an anti-climbing device	2	ea		
9	Supply and install spark GAP	1	sum		
10	Clean and paint structure and control box.	1	sum		
11	Supply and install LT cable 50mm	15	m		
12	Supply and install cable treats	8	Ea		
13	Armed security	1	Sum		
14	P's and G's	1	Sum		
A	Subtotal (Excl. VAT) =				R
B	VAT (14%) of A =				R
C	Gross Total (A+B) =				R

Item	Description	Qty	Unit	Rate	Price
Doornpoort					
1	Supply and install 50mm ² Cu wire	20	M		
2	Supply and install 11kV lightning arrestors	6	Ea		
3	Supply and install 11kV link switch	2	ea		
4	Supply and install 11kV fuse carrier and holder together with drop out fuse link rated 2A	3	Ea		
5	Supply and install PVC steel wire 97mm ² .	20	Ea		
6	Supply and install solid & chemically coated earth spike 1.2m long.	2	Sets		
7	Supply and install lug 160mm ² & 13.5mm ³ wam bolts & nuts	5	Sets		
8	Supply and install an anti-climbing device	2	ea		
9	Supply and install spark GAP	1	sum		
10	Clean and paint structure and control box.	1	sum		
11	Supply and install LT cable 50mm	15	m		
12	Supply and install cable ream	8	Ea		
13	Armed security	1	Sum		
14	P's and G's	1	Sum		
A	Subtotal (Excl. VAT) =				R
B	VAT (14%) of A =				R
C	Gross Total (A+B) =				R

Part C3: Works information

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Part C3: Contract Data

Part C3.1: Works Information

3.1 DESCRIPTION OF WORK.

3.1.1 Scope of Works.

3.1.1.1 The Contractor shall perform the job as follows:

- This project specification covers requirements for the upgrade of H-frames for line 11.
- The Contractor shall refurbish the H-frame complete with all associated equipment and cabling.
- The project shall cover the following H-Frames at KM (ML37/21), (ML37/3), (ML52/4)(52/5), (ML43/6) and 37/2.
- All material from the H/frame mast such as suspension insulator, link switches, must be delivered back to the Koedoespoort Transnet Freight Rail Depot.
- Painting of masts shall be done in accordance with specifications CEE.0018.90 and CEE00.19.90 and other related specifications mentioned in the appendices.
- The control box shall be painted electric orange using e-proxy-resin-based enamel paint.
- Anti-climbing devices shall be installed on the transformer mounting structures supporting 11KV supply cables. This installation shall be in accordance with Drawing No. CEE-PFC-141. The anti-climbing devices shall be installed at a minimum height of 3 meters from ground level.
- All new outdoor steel work shall be galvanised in accordance with SANS 763.
- The Contractor shall at all times comply with the requirements of specification No.E7/1 when working on, over, under or adjacent to a railway line.
- All work methods, tools and equipment shall comply with the requirements of the Occupational, Health and Safety Act No.85 of 1993.
- The Contractor shall do cable according to specification CEE-026-ISS-1.PDF and SANS 10142.
- Feeder jumpers between the cut-out fuses and the step-down transformer primary shall be insulated.
- All cables shall be insulated to the mast structures by means of wooden cleats according to Drawing No. CEE-PFC-6, 9 and 105 shall be applicable.
- The stay wire arrangement shall be done according to Drawing No. CEE-PFD-24. The stay wire shall be installed at every transmission line anchor point. The existing stay wire at the H-frames shall not be replaced, if they have a slack they shall be retention. The stay wire shall be installed at an angle of 45 degrees to the pole and stay wire rod.

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- The minimum clearance between any normally live conductor and earthed metal shall not be less than 200mm and the minimum creepage distance shall be less than 240mm for 11KV for their respective highest voltage (Um) r.m.s as defined in SANS 6037 clause 4.7.
- The Contractor shall supply and install surge arrestors in accordance with specification BBB0845, the surge arrestors shall be suitable for a nominal voltage of 11KV.
- Install fuse links according to specification SANS IEC 280 and BBC 7614.
- Install a new spark gap according to specification CEE-PA-41.
- Earthing of the whole system must be done according to specification CEE-0177-ISS-86.
- A lug with bolting hole of 12mm diameter shall be crimped to the ends of the bonds which are to be attached to the rail. Only the lugs referred to in Drawing No. CEE-TU-136 shall be used, as commonly used lugs will prevent future unbolting of the of the bond connection.
- Anti-corrosion paste (Denso profiling mastic paste/ equivalent) shall be applied all over exposed surfaces of the fastening system and the entrance of the bond cable to the lug to prevent corrosion.
- The earthing leads shall always be insulated from the OHTC mast.

3.1.2 DURATION OF WORK

- 3.1.2.1 The completion date of work shall not be later than 60 working days after notification date/letter/has been issued to the successful Contractor, stating that this work/contract have been awarded to him/her.

3.1.3 WORK TO BE DONE BY TRANSNET

- 3.1.3.1 Transnet Freight Rail will have a certified person on site at all times for isolating of electrical equipment and issuing of work permits.

- 3.1.3.1 All material removed must be handed back to Transnet Freight Rail Koedoespoort Depot.

3.1.4 MATERIAL TO BE SUPPLIED BY CONTRACTOR

- 3.1.4.1 Transnet Freight Rail will supply no material and the Contractor will supply all the material and tools required to execute the works.

- 3.1.4.2 The Contractor must ensure that there is a 24 hour security on site at all times, Please note that Transnet will not be liable for any equipment's stolen before hand over.

3.1.5 MATERIAL LIST

- 3.1.5.1 Three Lightning Arrestors 11kV
 3.1.5.2 Three Fuse Links 11kV
 3.1.5.3 Earth spikes chemically coated
 3.1.5.4 Spark gap

3.1.5.5 50mm² Copper wire

3.1.5.6 PVC steel wire.

3.1.6 SAFETY

3.1.6.1 The Contractor shall in particular comply with the following acts:

3.1.6.1.1 The compensation for occupational injuries and diseases and injuries act No.130 of 1993.

3.1.6.1.2 The occupation health and safety act 85 (1993).

3.1.6.1.3 The Contractor will ensure that a competent Supervisor will oversee the safe running and completion of the work and related activities.

3.1.6.1.4 The Contractor will issue all workers employed by him with the necessary protection clothing applicable to the type of work being performed.

3.1.6.2 The Contractor must see that all his workers are in a safe area and that refers to:

3.1.6.2.1 Be-aware of trains at all times.

3.1.6.2.2 Not climbing masts.

3.1.6.2.3 Staying away from live electrical wires.

3.1.7 INSPECTION OF THE WORK

3.1.7.1 All work done by the Contractor will be inspected after completion by the Employer's Deputy and the Supervisor for compliance with Transnet Freight Rail standards.

3.1.7.2 Acceptance by the Supervisor of satisfactory completion of the work does not at all restrict the Contractor from his obligation to rectify defects, which may have been overlooked or become evident at a later stage.

3.1.7.3 The work is found satisfactory and Transnet Freight Rail land is left as found in the same condition or better, a certificate of completion will be issued and the Contract will be considered complete.

3.1.8 TEST

3.1.8.1 The Contractor shall be responsible for carrying out on-site tests and commissioning of the equipment installed in terms of this specification and the contractual agreement.

3.1.8.2 Functional on-site tests shall be on all items of equipment and circuitry to prove the proper functioning and installation thereof. The Contractor shall submit a detailed list of on-site tests for approval by the Supervisor.

3.1.8.3 The Contractor shall arrange for the Supervisor or his representative to be present to witness the on-site tests at the site.

3.1.8.4 On-site tests shall include the following:

- The functionality of all electrical circuitry.
- Earth continuity test

Engineering and Construction

- 3.1.8.5 At the completion of the on-site tests the Supervisor or his representative shall either sign the test sheet (supplied by the Contractor) as having witnessed the satisfactory completion thereof, or hand to the Contractor a list of defects requiring rectification.
- 3.1.8.6 Upon rectification of defects the Contractor shall arrange for the Supervisor or his representative to certify satisfactory completion of on-site tests for the cables.
- 3.1.8.7 Acceptance by the Supervisor of satisfactory completion of on-site tests in no way relieves the Contractor of his obligation to rectify defects which may have been overlooked or become evident at a later stage.
- 3.1.9 COMMISSIONING OF EQUIPMENT
- 3.1.9.1 Commissioning will only take place after all defects have been rectified to the satisfaction of the Employer's Deputy.
- 3.1.9.2 Commissioning will include the energizing of equipment from the sub-feeder to the link switches. The Contractor must prove the satisfactory operation of equipment under live conditions.
- 3.1.9.3 On completion of commissioning the Contractor will hand the equipment over to the Supervisor in terms of the relevant instruction.
- 3.1.10 GUARANTEE AND DEFECTS
- 3.1.10.1 The Contractor shall guarantee the satisfactory operation of the complete electrical installation supplied and installed by him and accept liability for maker's defects, which may appear in design, materials and workmanship.
- 3.1.10.2 The guarantee period for all material installed shall expire after a period of 12 months commencing on the date of completion of the contract or the date the equipment is handed over to Transnet Freight Rail whichever is later.
- 3.1.10.3 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 e.g., faulty locomotive or overhead track equipment, etc., shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the employer's Deputy/Supervisor and at the cost of the Contractor.
- 3.1.10.4 If urgent repairs have to be carried out by Transnet Freight Rail staff to maintain supply during the guarantee period the Contractor shall inspect such repairs to ensure that the guarantee period is not affected and should they be covered by the guarantee, reimburse Transnet Freight Rail the cost of material and labour.
- 3.1.10.5 Any defects discovered within the guarantee period and which cannot be proven to be due to other factors not forming part of this contract e.g. vandalism etc. shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the Supervisor and at the cost of the Contractor.

Engineering and Construction

- 3.1.10.6 All payments will be made after the work is found to be satisfactory and Transnet Freight Rail land is left in a better condition as found.
- 3.1.11 PENALTIES
- 3.1.11.1 Should the Contractor fail to complete the work by the date stipulated in the contract, or such extended date (s) as may be allowed by Transnet Freight Rail, he shall pay to Transnet Freight Rail as penalties in terms of conventional penalties act 1996 as amended, the prescribed amount for each day (R2,000 per day for late completion) or part thereof during which the work remain incomplete.

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Part C3: Contract Data

Part C3.2: Particular specification

3.2 PARTICULAR SPECIFICATION.

3.2.1 This project specification covers requirements for the upgrade of H-frames for line11.

3.2.1.1 The Contractor shall refurbish the H-frame complete with all associated equipment and c

3.2.1.2 The project shall cover the following H-Frames at KM: (ML37/21), (ML37/3), (ML52/4)(52 (ML43/6) and 37/2.

3.2.2 STANDARDS

3.2.2.1 Unless otherwise specified all materials and equipment supplied shall comply with the current edition of the relevant SANS, BS, IEC, or Transnet Freight Rail publication where applicable.

3.2.3 The following publication is referred to in this specification:

3.2.3.1 SANS STANDARD SPECIFICATIONS

3.2.3.1.1 SANS 10142 Wiring code

3.2.3.1.2 SANS 60099-4 Surge arresters part 4: Metal-oxide arresters without gaps for ac systems.

3.2.3.2 TRANSNET FREIGHT RAIL SPECIFICATIONS

3.2.3.2.1 CEE-0012 of 2002 Method of Tendering

3.2.3.2.2 CEE-0117-ISS-80 Code of practice, earth system for electric light and power and traction installation.

3.2.3.2.3 BBB7842 Requirements for metal oxide surge arrestors without gaps for AC systems in accordance with SANS 60099-4.

3.2.3.2.4 CEE-026-ISS-1.PDF Earthing of electric power and light equipment, associated with 3kV DC electrification.

3.2.3.2.5 BBB7842.PDF Outdoor, high voltage AC disconnects combined with earthing switches.

3.2.3.2.6 BBC7614 11kV 50Hz AC outdoor fuses cut-outs of continuous current rating 100A and fitted with fast acting fuses.

3.2.3.2.7 CEE-PA-41 Earthing

3.2.3.2.8 CEE-TU-35 Bonding mast to rail.

Engineering and Construction

3.2.3.3 Any item offered in accordance with the standards will be considered at the sole discretion of the Transnet Freight Rail. The Contractor shall supply the details stating where the item differs from these specifications as well as supply a copy (in English) of the recognised standard specifications with which it complies.

3.2.4 SPECIFICATIONS.

3.2.4.2 SOUTH AFRICAN NATIONAL STANDARDS:

- 3.2.4.1.1 1091 NATIONAL COLOUR STANDARD.
- 3.2.4.1.2 SANS 763 HOT DIP GALVANISED ZINC COATING.
- 3.2.4.1.3 SANS 121 HOT DIP GALVANISED COATING FOR FABRICATED IRON OR STEEL ARTICLE.
- 3.2.4.1.4 SANS 10142-1 WIRING CODE.
- 3.2.4.1.5 SANS 1064.2005 CODE OF PRACTICE FOR THE PREPARATION OF STEEL SURFACES FOR COATING.

3.2.4.2 TRANSNET FREIGHT RAIL:

- 3.2.4.2.1 CEE TBK 0027 Control circuit diagrams – NO volt operation.
- 3.2.4.2.2 BBC 0198 VER. 1 Specifications for the supply of cables.
- 3.2.4.2.3 CEE.0023.90 Specifications for installation of cables.

3.2.5 **NOTE: ANY OTHER SPECIFICATIONS REFERENCED IN THE ABOVE MENTIONED SPECIFICATION, WILL BE FOR INFORMATION PURPOSES AND MAY BE PROVIDED ON REQUEST.**

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

3.2.7 CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS

3.2.8 These constraints shall be as specified in the specifications of the particular equipment.

3.2.9 REQUIREMENTS FOR THE PROGRAMME.

3.2.9.1 Programme of work: To be submitted by successful Contractor

3.2.9.2 Format: Gantt chart/bar chart

3.2.9.3 Information: How work is going to be executed and commissioned

Engineering and Construction

(method statement and approach paper)

- 3.2.9.4 Submission: immediately after the award of contract
- 3.2.9.5 Site diary: Successful Contractor to supply in triplicate carbon copies
- 3.2.9.6 Site instruction book: Successful Contractor to supply in triplicate carbon copies

3.2.10 SERVICES AND OTHER THINGS PROVIDED BY THE EMPLOYER.

- 3.2.10.1 Transnet Freight Rail shall inspect the support steel structure on the premises of the manufacturer.
- 3.2.10.2 Transnet Freight Rail shall inspect all equipment before dispatching the equipment to site.
- 3.2.10.3 Transnet Freight Rail shall have an electrician available for isolation and the erection of barriers to live electrical equipment and issuing of work permits.
- 3.2.10.4 Upon successful completion of the works to the satisfaction of Transnet Freight Rail, Transnet Freight Rail shall perform necessary protection tests and commission the equipment.
- 3.2.10.5 The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- 3.2.10.6 Transnet Freight Rail will arrange for the reconnecting of telecontrol equipment in the substation and no final energising shall take place without this.

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TECHNOLOGY MANAGEMENT.

SPECIFICATION.

**REQUIREMENTS FOR METAL OXIDE SURGE ARRESTERS
WITHOUT GAPS FOR TRACTION AND POWER
DISTRIBUTION SUBSTATIONS IN ACCORDANCE WITH
SANS 60099-4**

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Date: 21st September 2009

Circulation Restricted To:

Transnet Freight Rail – Chief Engineer Infrastructure
- Technology Management

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1.0 SCOPE

This document presents information and requirements for metal oxide surge arresters of the station class to be installed at Transnet Freight Rail's traction substations and distribution substations.

2.0 INFORMATION ON SYSTEM

- 2.1 Nominal frequency is 50 HZ.
- 2.2 Maximum duration of the earth fault is less than 1 second (Solidly earthed).
- 2.3 Short-circuit current of the system at the arrester location is lower than 10 kA.
- 2.4 Transnet Freight Rail's traction substations and power distributions systems are considered to be effectively earthed.
- 2.5 An earth fault factor equal to $0,8\sqrt{3}$ for solidly earthed neutral systems shall be used to calculate the ratings of the surge arresters which will be suitable for the different nominal r.m.s voltage systems supplying Transnet Freight Rail's traction substations and distribution substations.

3.0 STANDARDS

- 3.1 Unless otherwise specified all materials and equipment supplied shall comply with the current edition of the relevant SANS or Transnet Freight Rail's publication where applicable.
- 3.2 The following publications are referred to in this specification:

3.2.1 SOUTH AFRICAN NATIONAL STANDARDS

SANS 1019: Standard voltages, currents and insulating levels for electrical supply

4.0 INFORMATION ON SERVICE CONDITIONS

4.1 NORMAL CONDITIONS

See conditions in clause 4.1 SANS 60099-4

4.2 ABNORMAL CONDITIONS

The surge arrester shall be designed for the following ambient conditions:

Altitude:	0 to 1800m above sea level
Ambient temperature:	minus10 °C to plus 45 °C
Relative humidity:	10% to 90%.
Atmosphere:	Heavy polluted environment: salt laden, industrial and locomotive fumes, and severe dust conditions.

5.0 INSULATION LEVELS

INSULATION LEVELS

For the medium and high voltage nominal r.m.s voltage systems on Transnet Freight Rail the recommended Insulation levels is tabled in table 1 below.

Highest phase-to-phase r.m.s voltage for equipment. (U_m)	Nominal system r.m.s. voltage. (U_n)	Rated lightning impulse withstand voltage peak.	Rated short duration power- frequency withstand r.m.s voltage.
7,2 kV	6,6 kV	75 kV	22 kV
12 kV	11 kV	95 kV	28 kV
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 650 kV	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]

6.0. INFORMATION ON THE ARRESTER DUTY

- 6.1 Selection of surge arresters for the traction substations and distribution substations shall be in accordance with tables No's 2 and shall not compromise the recommended impulse levels as shown in table No 1
- 6.2 The arrester will be connected between phase and earth.
- 6.3 The equipment, which will be protected, is:
- Transformer directly connected to line via overhead conductors.
 - Rectifier units (Diodes, Capacitors, etc.).

7.0 SCHEDULE OF SURGE ARRESTER RATINGS FOR EFFECTIVELY EARTHED SYSTEMS.

Table 2 shown below is representative of the parameters of surge arresters employed for protection. Minor deviations from the table are permissible but information concerning these deviations must be supplied to Technology Management for acceptance.

TABLE 2

Nominal system r.m.s. voltage	6,6 kV	11kV	22 kV	33 kV	44 kV	66 kV	88 kV	132 kV	220 kV
Rated voltage of surge arrester. Ur	6,0 kV	12 kV	21kV	36 kV	42 kV	60 kV	84 kV	120 kV	198 kV
Continuous operating voltage of surge arrester Uc	4,8 kV	9.6 kV	16.8 kV	28.8 kV	33.6 kV	48 kV	67 kV	96 kV	158 kV
Nominal discharge current (8/20 μ s)	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA
High current (4/10 μ s)	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Line discharge class	2	2	2	2	2	2	2	2	3
Pressure relief capability (0.2s)	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40kA	40 kA	63kA
Temporary overvoltage (TOV) prestressed acc to IEC 99-4 for duration of 1 second	6,9 kV	13.8 kV	24.1kV	41.4 kV	48.3kV	69kV	96kV	138kV	228 kV
Temporary overvoltage (TOV) prestressed acc to IEC 99-4 for duration of 10 seconds	6,5 kV	13.0 kV	22.8 kV	37.2 kV	45.7 kV	65 kV	91kV	130 kV	214kV
Residual voltage at steep current impulse (1/2 μ s) 10kA	17,6 kV	30.1kV	61.4 kV	106.3 kV	123 kV	176 kV	246 kV	351kV	518 kV
Residual voltage at lightning current impulse (8/20 μ s) 10kA	19 kV	31.9 kV	55.9 kV	96.8 kV	111.8kV	160 kV	223 kV	319 kV	475 kV
Residual voltage at switching current impulse (30/70 μ s)500A	12,9 kV	25.8 kV	45.2 kV	77.5 kV	90.8 kV	129 kV	181 kV	258 kV	392 kV

7.1 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.

8.0 REQUIREMENTS

- 8.1 The manufacturer shall provide a routine test report for each arrester in accordance to SANS 60099-4 clause 8.1 a, b and c.
- 8.2 To verify the seal integrity the manufacturer shall indicate the leakage rate of the arrester (SANS 60094-4 clause 8.1.d) and what type of leakage test method has been used. The Integrated Helium Mass Spectrometer or the Membrane method is the preferred method.
- 8.3 The tenderer shall provide the information as per SANS 60099-4, Annexure G, Clause G2.
- 8.4 Nameplate data in accordance with clause 3.1 of SANS 60099-4 shall be fitted to each arrester.
- 8.5 If a polymer type of arrester is presented it is preferred that the housing will consist of Fibre-reinforced Resin tube with a non-tracking Silicon shed which is UV protected.
- 8.6 The sealing test is only required for arresters with enclosed gas volumes and separate sealing systems.

9.0 BIBLIOGRAPHY

- [1] SANS 1019: 2008. Edition 2.5

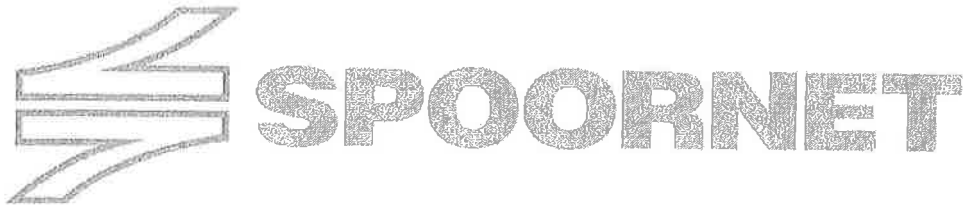
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SCHEDULE OF REQUIREMENTS
SURGE ARRESTER FOR SUBSTATIONS

- 1.0 Arresters required for substation: _____
- 2.0 Quantity required: _____
- 3.0 Nominal system voltage: _____
- 4.0. Surge arresters to be fitted with insulation bases: yes / no.
- 5.0. Surge counters required for the surge arresters yes / no

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**ENGINEERING & TECHNOLOGY
TECHNOLOGY MANAGEMENT**

SPECIFICATION

**OUTDOOR, HIGH VOLTAGE, ALTERNATING CURRENT
DISCONNECTORS COMBINED WITH EARTHING
SWITCHES**

Author: Engineering Technician
Technology Management

D.O. Schulz

Handwritten signature of D.O. Schulz over a dotted line.

Approved: Senior Engineer
Technology Management

L.O. Borchard

Handwritten signature of L.O. Borchard over a dotted line.

Authorised by: Principal Engineer
Technology Management

W.A. Coetzee

Handwritten signature of W.A. Coetzee over a dotted line.

Date: 18th Oct 2004

Circulation restricted to:

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1.0 SCOPE

- 1.1 This specification covers Spoornet's requirements for the supply of outdoor, 3 phase, 50 hertz disconnectors combined with earthing switches for voltages above 1 000 V.
- 1.2 Equipment is required for installation at the end of overhead transmission lines to control the power supply to traction substations and step- down points and shall consist of a 3 pole disconnector to be connected to the line and provided with facilities to earth the "load" side of the circuit.

2.0 STANDARDS AND PUBLICATIONS

The following publications and documents (latest edition) are referred to herein.

2.1 SOUTH AFRICAN NATIONAL STANDARDS

- SANS 121 : Hot dip galvanized coating for fabricated iron or steel article.
- SANS 60273 : Characteristics of indoor and outdoor post insulators for systems with nominal voltages greater than 1000 V.
- SANS 60815 : Guide for selection of insulators in respect of polluted conditions
- SANS 62271-102 : High voltage switchgear and controlgear part 102: Alternating Current disconnectors and earthing switches

2.3 SPOORNET SPECIFICATIONS

- CEE.0224 : Drawings, catalogues, instruction manuals, spares list for electrical equipment supplied under contract.

3.0 TENDERING PROCEDURE

- 3.1 Tenderers shall indicate clause by clause compliance with the specification. This shall take the form of a separate document listing all the specifications clause numbers indicating the individual statement of compliance or non-compliance.
- 3.2 A statement of non-compliance shall be motivated by the tenderer.
- 3.3 Tenderers shall complete annexure 2. "Technical data sheet."
- 3.4 Tenderers shall submit descriptive literature consisting of detailed technical specifications, general constructional details and principal dimensions, together with clear illustrations of the equipment offered.
- 3.5 Failure to comply with clauses 3.1, 3.2, 3.3 and 3.4 could preclude a tender from consideration.

4.0 ANNEXURES

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

- 4.1 Annexure 1 - "Schedule of Requirements"
This annexure details the specific requirements for this application.
- 4.2 Annexure 2 - "Technical Data Sheet"
This annexure calls for specific technical information to be furnished with tenders.
 - 4.2.1 This annexure is used during adjudication of tenders to assess the equipment offered.
 - 4.2.2 Equipment described in annexure 2 shall comply with, and be supplied in terms of this specification. No changes or substitutions will be allowed without the written consent of Spoornet.

4.2.3 Acceptance of the equipment detailed in this annexure in no way relieves the tenderer of his obligation to fulfil his statement of compliance with the specification.

4.2.4 Tenderers are responsible for the accuracy of information submitted in this annexure.

5.0 SERVICE CONDITIONS

5.1 The equipment shall be designed and rated for continuous operation under the following conditions:

- 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.

6.0 CLEARANCES

6.1 The following minimum safety clearances shall be maintained between any live conductor and earthed metal: -

Nominal phase to phase r.m.s system voltage	22kV	33kV	44kV	66kV	88kV	132kV
Highest phase to phase r.m.s voltage for equipment.	24kV	36kV	48kV	72kV	100kV	145kV
Safety clearance	300mm	430mm	540mm	770mm	1000mm	1450mm

7.0 DISCONNECTORS COMBINED WITH EARTHING SWITCHES

This section shall be read in conjunction with SANS 62271-102

7.1 The combined AC disconnector and earthing switches shall be designed, manufactured and tested in accordance with SANS 62271-102.

7.2 Disconnectors and earthing switches shall have been type tested to verify performance and safety. Proof of these tests in the form of type test certificates shall be included in the tender documents.

7.3 The disconnectors shall be provided with a means for earthing the "load" side of the circuit, either by means of a separate earthing switch interlocked with its operating mechanism or contacts so placed that when the disconnector is in the "open" position, the "load" side is earthed.

7.4 The disconnectors shall be of the air-break type with the blades operating in a horizontal plane.

7.5 The disconnectors shall be so mounted that the phase-to-phase clearance for both the "open and earthed" and "closed" positions, shall not be less than:

- 22kV - 355mm
- 33kV - 510mm
- 40kV - 610mm
- 66kV - 890mm
- 88kV - 1,14metres
- 132 kV - 1,7metres

7.6 The operation of the disconnector shall be manual. (Dependent or independent).

- 7.7 The operating mechanism shall be constructed of anti-corrosive material to prevent sticking due to rust. All ferrous material shall be galvanised.
- 7.8 The operating handle shall be provided with suitable attachments to enable it to be locked in the up (closed) position and in the down (open and earthed) position by standard locks, supplied by Spornet.
- 7.9 The operating assembly shall be fixed at a satisfactory operating height of approximately 1m from the bottom of the structure.
- 7.10 A mechanism shall be provided to mechanically interlock the operating handle with the associated primary circuit breaker to ensure that operation is only possible when the circuit breaker is in the "open" position. It must, however, be possible to close the primary circuit breaker when the earthing switch is in the "earthed" position.
- 7.11 Electrical contacts shall be fitted to interlock the operating handle with the associated primary circuit breaker. In the event of accidental operation or movement of the operating handle the primary circuit breaker will be tripped before the main contacts of the AC disconnector starts opening.
- 7.12 A notice with the following inscription shall be mounted next to the operating mechanism:
"DO NOT OPERATE UNDER LOAD"
Refer to clause 11.4.2 of specification.
- 8.0 SUPPORT STRUCTURES**
- 8.1 The combined AC disconnector and earthing switches shall be rigidly mounted on robust, hot-dipped galvanised supporting steel structures or pedestals in accordance with SANS 121.
- 8.2 The supporting steel structures or pedestals shall provide a minimum clearance of 3,6 metres (up to 88 kV) or 4,1 metres (above 88 kV) from the lowest "live" high voltage connection to finished yard level. Outline drawings submitted with tenders must indicate the actual clearances proposed.
- 9.0 CONNECTIONS**
- 9.1 All high voltage connections must be of the solderless, concentric grip, or other approved solderless type, and must be of adequate cross-sectional area to suit both electrical and mechanical requirements. All connections to the disconnectors must be flexible so as not to affect smooth operation of the blade mechanism.
- 10.0 POST INSULATORS**
- This section shall be read in conjunction with SANS 60273.
- 10.1 All post insulators shall be designed, manufactured and tested in accordance with SANS 60273.
- 10.2 Unless otherwise stated in Annexure 1, creepage distances for heavy polluted atmospheres shall be in accordance SANS 60815 Clause 4.
- 11.0 NAMEPLATES AND LABELS**
- 11.1 All nameplates and labels shall be in English.
- 11.2 In addition to the data called for in SANS 62271-102 the nameplate of each device shall indicate the Spornet contract number.
- 11.3 Labels other than interchangeable labels shall be fixed by screws or rivets.
- 11.4 All labels shall be made of composite sandwich type plastic material of the following colour combinations:
- 11.4.1 Identification labels: White lettering on Black background. Letters must be of sufficient size to be clearly legible from a distance of 3 m.

11.4.2 Danger labels: White lettering on Red background. Letters must be of sufficient size to be clearly legible from a distance of 3 m.

11.5 The following is a list of approved labels referred to in the body of this specification.

- On (1)
- Off (0)
- Open (Verb.)
- Close (Verb.)
- Closed
- Open
- Do not operate link under load.
- Open and earthed.

12.0 DRAWINGS AND INSTRUCTIONS

12.1 All drawings shall be in accordance with specification CEE-0224.

12.2 The successful tenderer shall supply the following drawings and/or instructions, all of which shall be included in the tender price and be to the satisfaction of Spoomet.

12.2.1 Before delivery to site three (3) sets of detailed operating and maintenance instructions, with illustrations where necessary. These instructions shall be supplied with the "as built" drawings.

12.3 Late submission of drawings and instructions shall incur delivery penalties on the full contract price.

13.0 INSPECTION

13.1 Spoomet reserves the right by prior arrangement to inspect the equipment at any stage during manufacture.

14.0 TOOLS AND APPLIANCES

14.1 One set of any special tools and appliances required for normal operation and maintenance shall be supplied. All fittings including holding down bolts, etc. for the complete installation of the equipment offered shall be supplied.

15.0 SPARES

15.1 Tenderers shall submit a separate quote for recommended spares for maintenance purposes.

15.2 A detailed description of each item including manufacturer's catalogue number and item number where applicable shall be furnished. Separate prices for each item shall be indicated.

15.3 The spare list shall be divided into two parts, one covering items used in a 12 month period and those likely to be used in a 10 year period.

15.4 Tenderers shall also state whether a complete range of spares is held in stock by their local representatives for subsequent purchase by Spoomet as and when required.

16.0 PACKING

16.1 The equipment shall be packed in such a manner that it will be adequately protected during handling and transport.

END

SCHEDULE OF REQUIREMENTS

1.0 Required for

2.0 Number of sets required

3.0 System of supply kV, 50 Hz, 3 phase, neutral

DISCONNECTOR

EARTHING SWITCH

4.0 Rated voltage: kV kV

5.0 Rated frequency: 50 Hz 50 Hz

6.0 Rated normal current: A A

7.0 Rated short time withstand current: kA kA

8.0 Special requirements:

.....

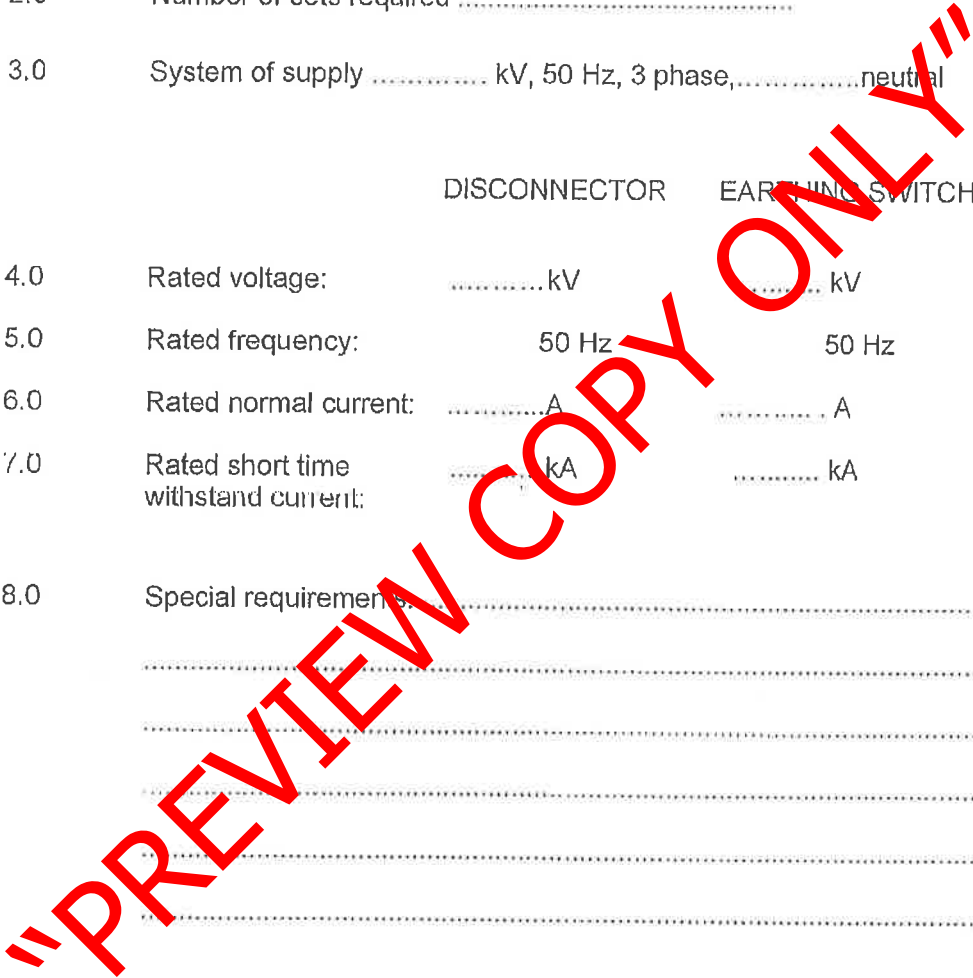
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END

TECHNICAL DATA SHEET

(To be completed by tenderers and submitted as part of their tender)

1.0	Spoornet Tender number:		
		DISCONNECTOR	EARTHING SWITCH
2.0	Name of manufacturer.	.....	.....
3.0	Type number	.....	.....
4.0	Number of poles.	.....	.....
5.0	Indoor/Outdoor.	.....	.....
6.0	Rated voltage.	.....	.....
7.0	Rated insulation level.	.....	.....
7.1	Rated 1 minute power frequency withstand voltage.	.....	.....
7.2	Rated lightning impulse withstand voltage.	.....	.....
8.0	Rated frequency.	.....	.....
9.0	Rated normal current.	.....	.....
10.0	Rated short circuit making current.	.....	.....
11.0	Rated short time withstand current.	.....	.....
12.0	Mass of complete unit.	.....	.....
13.0	Minimum clearance in air:		
13.1	Between poles.	.....	.....
13.2	To earth.	.....	.....
13.3	For isolating distance.	.....	.....
14.0	Type of closing mechanism.
15.0	Height above ground of lowest HV connection.

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ANNEXURE 2

		DISCONNECTOR	EARTHING SWITCH
16.0	Length of Insulator (taut string measurement)
17.0	Type test certificate	.....	.....
17.1	Testing authority	.....	.....
17.2	Test number	.....	.....
18.0	Insulators		
18.1	Type test certificate number
18.2	Testing authority

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