

Transnet Rail Infrastructure Manager

an Operating Division **TRANSNET SOC LTD**

[Registration Number 1990/000900/30]

REQUEST FOR PRICE (RFP)

FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUBSTATIONS

RFP NUMBER	: WRAC-BLQ-54954
ISSUE DATE	: 24 October 2025
Clarification Meeting	: 10 & 11 November 2025
CLOSING DATE	: 19 November 2025
CLOSING TIME	: 11h00 am
TENDER VALIDITY PERIOD	: 12 weeks from closing date

Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

SECTION 1: NOTICE TO TENDERERS

1. INVITATION TO TENDER

Responses to this Tender [hereinafter referred to as a **Tender**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as a Tenderer].

DESCRIPTION	FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUBSTATIONS
TENDER DOWNLOADING	This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za and the Transnet website at https://transnetetenders.azurewebsites.net (please use Google Chrome to access Transnet link) FREE OF CHARGE.
COMPULSORY TENDER CLARIFICATION MEETING	The Compulsory Tender Clarification Meeting will be conducted over two days. Day 1: Bidders meet at the Transnet Park Building, Robert Sobukwe Road, Bellville in the parking lot in front of the building on 10 November 2025 at 10:00 and then move to the following sites: • Muldersvlei – 22km from Bellville • Huguenot – 43km from Bellville • Soetendal – 68km From Bellville • Gouda – 94km from Bellville • Sandhills – 97 km from Bellville Day 2: Bidders meet by the Total garage in Touwsrivier on 11 November 2025 at 10:00 and then move to the following sites: • Hugo – 7km from Touwsrivier • Quarry – 19km from Touwsrivier • Leeu- Gamka – 208km from Tousrivier [Tenderers to provide own transportation and accommodation]. The Compulsory Tender Clarification Meetings will start punctually, and

	information will not be repeated for the benefit of Tenderers arriving late. Contact Xolile Damba for directions on cell phone no. 083 781 7376 and Fortunate Dayi on 083 795 1715 A Site visit/walk will take place, tenderers are to note: • Tenderers are required to wear safety shoes, goggles, long sleeve shirts, high visibility vests and hard hats. • Tenderers without the recommended PPE will not be allowed on the site walk. • Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will have to undergo breathalyser testing. • All forms of firearms are prohibited on Transnet properties and premises. • The relevant persons attending the meeting must ensure that their identity documents, passports or drivers licences are on them for inspection at the access control gates. Certificate of Attendance in the form set out in the Returnable Schedule T2.2-02 hereto must be completed and submitted with your Tender as proof of attendance is required for a compulsory site meeting and/or tender briefing. Tenderers are required to bring this Returnable Schedule T2.2-02 to the Compulsory Tender Clarification Meeting to be signed by the <i>Employer's</i> Representative. Tenderers failing to attend the compulsory tender briefing will be disqualified.
CLOSING DATE	11:00am on 19 November 2025 Tenderers must ensure that tenders are uploaded timeously onto the system. If a tender is late, it will not be accepted for consideration.

2. TENDER SUBMISSION

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

a) The Transnet e-Tender Submission Portal can be accessed as follows:

Log on to the Transnet eTenders management platform website (<https://transnetetenders.azurewebsites.net>);

- Click on "ADVERTISED TENDERS" to view advertised tenders;

- Click on "SIGN IN/REGISTER – for bidder to register their information (must fill in all mandatory information);
 - Click on "SIGN IN/REGISTER" - to sign in if already registered;
 - Toggle (click to switch) the "Log an Intent" button to submit a bid;
 - Submit bid documents by uploading them into the system against each tender selected.
 - **Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.**
- b) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- c) Submissions must not contain documents relating to any Tender other than that shown on the submission.

3. CONFIDENTIALITY

All information related to this RFP is to be treated with strict confidentiality. In this regard Tenderers are required to certify that they have acquainted themselves with the Non-Disclosure Agreement. All information related to a subsequent contract, both during and after completion thereof, will be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Works, which is either directly or indirectly related to Transnet's business, written approval to divulge such information must be obtained from Transnet.

4. DISCLAIMERS

Tenderers are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this Tender and/or its receipt of a tender offer. In particular, please note that Transnet reserves the right to:

- 4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 4.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 4.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 4.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 4.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);
- 4.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.
- 4.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.
- 4.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers

are required to indicate in tender returnable on **T2.2-20 [Breach of Law]** whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.

4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer:

- *unduly high or unduly low tendered rates or amounts in the tender offer;*
- *contract data of contract provided by the tenderer; or*
- *the contents of the tender returnables which are to be included in the contract.*

5. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

6. NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Tenderer are required to self-register on National Treasury's Central Supplier Database (CSD) which has been established to centrally administer supplier information for all organs of state and facilitate the verification of certain key supplier information. The CSD can be accessed at <https://secure.csd.gov.za/>. Tenderer are required to provide the following to Transnet in order to enable it to verify information on the CSD:

Supplier Number..... and Unique registration reference number.....(**Tender Data**)

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

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice No 9 of 2008 in Government Gazette No 31823 of 30 January 2009, Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

This edition incorporates the amendments made in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019. (see www.cidb.org.za).

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

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

Clause	Data
C.1.1 The <i>Employer</i> is	Transnet SOC Ltd (Reg No. 1990/000900/30)
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
Part T: The Tender	
Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
Part T2 : Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
Part C: The contract	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2)
Part C2: Pricing data	C2.1 Pricing instructions C2.2 Price List

	Part C3: Scope of work	C3.1 Service Information
	Part C4: Affected Property	C4.1 Affected Property
C.1.4	The Employer's agent is:	Contract Specialist
	Name:	Estelle van Wyk
	Address:	Transnet Park Building, 1st Floor, Robert Sobukwe Road, Bellville
	Tel No.	021 940 1901 / 084 764 1601
	E – mail	estelle.vanwyk@transnet.net
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:	
	1. Stage One - Eligibility with regards to attendance at the compulsory clarification meeting: An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting in terms C2.7. <i>Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender</i>	
	2. Stage Two - Eligibility in terms of the Construction Industry Development Board: a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of 5 EP or higher class of construction work, are eligible to have their tenders evaluated. b) Joint Venture (JV) Joint ventures are eligible to submit tenders subject to the following: - every member of the joint venture is registered with the CIDB; - the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and - the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum	

tendered for a **5 EP or higher class** of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

4. The tenderer shall provide a certified copy of its signed joint venture agreement.

Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender.

3. Stage Three - Functionality

Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying for score for functionality is **60 points**.

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.3 below.

Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender.

C.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. **Tenderers must complete and sign the attendance register.** Addenda will be issued to, and tenders will only be received from those tendering entities including those entities that intends forming a joint venture appearing on the attendance register.

Tenderers are also **required to bring their RFQ document to the briefing session and have their returnable document T2.2-02 certificate of attendance** signed off by the Employer's authorised representative.

C.2.12 No alternative tender offers will be considered.

C.2.13.3 Each tender offer shall be in the **English Language**.

C.2.13.5 The *Employer's* details and identification details that are to be shown on each tender offer package are as follows:

Identification details:

The tender documents must be uploaded with:

- Name of Tenderer:
- Contact person and details:
- The Tender Number: WRAC-BLQ-54954

The Tender Description:

Documents must be marked for the attention of: FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION

TRANSFORMERS AND REFURBISHMENT OF MAIN AND
AUXILIARY TRANSFORMERS AT MULDERSVLEI,
HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO,
QUARRY AND LEEU-GAMKA SUBSTATIONS

Employer's Agent: Estelle van Wyk

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

C.2.15 The closing time for submission of tender offers is:

Time: **11:00am** on **19 November 2025**

Location: The Transnet e-Tender Submission Portal:

(<https://transnetetenders.azurewebsites.net>);

NO LATE TENDERS WILL BE ACCEPTED

C.2.16 The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.

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

1. A valid Tax Clearance Certificate issued by the South African Revenue Services.

Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status.

2. A **valid B-BBEE Certificate** from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a **sworn affidavit** confirming annual turnover and level of black ownership, in line with the code of good practice, together with the tender;

3. A valid CIDB / CRS no. in order to confirm the correct and required designated grading;

4. Proof of registration on the Central Supplier Database;

5. Letter of Good Standing with the Workmen's compensation fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV.

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

C3.11 The minimum number of evaluation points for functionality is: **60**

The procedure for the evaluation of responsive tenders is Functionality, Price and Preference:

Only those tenderers who attain the minimum number of evaluation 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 any further consideration.

C3.11 Functionality Criteria

The functionality criteria and maximum score in respect of each of the criteria are as follows:

Functionality criteria	Sub-criteria points	Maximum number of points
T2.2-03– Plan: Works plan indicating start date, end date, key milestones and duration of the works.	30	30
T2.2-04– Previous Experience: Tenderers are required to demonstrate performance in comparable projects of similar size and nature by supplying the following: Sufficient references to substantiate experience indicated. Contactable references relevant to this RFQ with either a completion certificate, written reference or in execution (company name, contact person, contact no. and value of work).	30	30
T2.2-05 – Project Organogram Management and CV's: Organisation chart showing on-site and off-site management (including the key people you have identified in the Contract Data Part two. Detailed CV's, proof of qualifications and professional registration attached for the Project Team including Safety Officer and Quality Assurance Representative. The Individual CV's from the Project Team to indicate the relevant experience.	40	40
Maximum possible score for Functionality		100

Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-03 Plan

- T2.2-04 Previous Experience
- T2.2-05 Project Organogram Management and CV's

Each evaluation criteria will be assessed in terms of scores of 0, 40, 70, 90 or 100

The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality, unless scored collectively. (See CIDB Inform Practice Note #9).

Note: Any tender not complying with the above-mentioned requirements, will be regarded as non-responsive and will therefore not be considered for further evaluation. This note must be read in conjunction with Clause C.2.1.

C3.11 Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 80/20 preference points systems as described in the Preferential Procurement Regulations.

80 where the financial value of one or more responsive tenders received have a value equal to or below R50 million, inclusive of all applicable taxes.

Thresholds	Minimum Threshold
Functionality	60

Evaluation Criteria	Final Weighted Scores
Price	80
Specific goals - Scorecard	20
TOTAL SCORE:	100

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 evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular "Specific Goal".**

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points.

Selected Specific Goal	Number of points allocated (80/20)
B-BBEE Level of contributor (1 or 2)	6

30% Black Women Owned entities	4
50% Black Youth Owned Entities	4
EME or QSE entities that are at least 51% Black Owned	6
Non-Compliant and/or B-BBEE Level 3-8 contributors	0

The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:

Specific Goals	Acceptable Evidence
B-BBEE	B-BBEE Certificate / Sworn-Affidavit B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
30% Black Women Owned Entities	B-BBEE Certificate / Sworn-Affidavit / CIPC B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
50% Black Youth Owned Entities	Certified copy of ID Documents of the Owners and B-BBEE Certificate / Affidavit (in case of JV, a consolidate scorecard will be accept)
EME or QSE entities that are at least 51% Black Owned	B-BBEE Certificate / Sworn-Affidavit / CIPC Certificate

The maximum points for this bid are allocated as follows:

DISCRIPTION	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION Level 1 or 2 – 6 points allocated 30% Black Women Owned Entities - 4 points allocated. 50% Black Youth Owned Entities – 4 points allocated EME or QSE entities that are at least 51% Black Owned – 6 Points	20
Total points for Price and Specific Goals must not exceed	100

Note: Transnet reserves the right to carry out an independent audit of the tenderers scorecard components at any stage from the date of close of the tenders until completion of the contract.

C.3.13 Tender offers will only be accepted if:

1. The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
3. the tenderer has fully and properly 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.
4. Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia; the tenderer:
is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
 - a) is not undergoing a process of being restricted by Transnet or other state institution that Transnet may be aware of,
 - b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
 - c) has the legal capacity to enter into the contract,
 - d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,

-
- e) complies with the legal requirements, if any, stated in the tender data and
 - f) is able, in the option of the employer to perform the contract free of conflicts of interest.
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C.3.17 The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

C.1 General

C.1.1 Actions

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

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

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

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

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

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

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

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

b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

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

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

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

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

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

C.2 Tenderer's obligations

C.2.1 Eligibility

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

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

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

C.2.12 Alternative tender offers

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

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

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

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

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

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

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

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

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

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

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

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

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

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

C.2.15 Closing time

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

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

C.2.16 Tender offer validity

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

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

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

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

C.2.17 Clarification of tender offer after submission

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

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

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

C.2.19 Inspections, tests and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

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

C.2.23 Certificates

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

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

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

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

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

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

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

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

C.3.5 Two-envelope system

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

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

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

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

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

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

C.3.9 Arithmetical errors, omissions and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:

- (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
- (ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

C.3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

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

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

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

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

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

T2.1 List of Returnable Documents

2.1.1 T2.2-01 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

2.1.2 This schedule are required for eligibility purposes:

T2.2-02 Eligibility with regards to attendance at the compulsory clarification meeting:

An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend the compulsory clarification meeting in terms C2.7.

2.1.3 These schedules will be utilised for evaluation purposes:

T2.2-03 Evaluation Schedule: Plan

T2.2-04 Evaluation Schedule: Previous Experience

T2.2-05 Evaluation Schedule: Project Organogram, Management & CV's

2.1.4 Returnable Schedules:

General:

T2.2-06 Health and Safety Management

T2.2-07 Health and Safety Questionnaire

T2.2-08 Environmental Management

T2.2-09 Quality Management

T2.2-10 Authority to submit tender

T2.2-11 Record of addenda to tender documents

T2.2-12 Letter of Good Standing

T2.2-13 Risk Elements

T2.2-14 Availability of equipment and other resources

T2.2-15 Schedule of proposed Subcontractors

T2.2-16 Affected Property Establishment Requirements

Agreement and Commitment by Tenderer:

- T2.2-17: CIDB SFU ANNEX G Compulsory Enterprise Questionnaire. Valid proof of Respondent's compliance to Specific Goals evidence (Preference Claim Form) requirements stipulated in SBD6.1.
- T2.2-18 Non-Disclosure Agreement
- T2.2-19 RFP Declaration Form
- T2.2-20 RFP – Breach of Law
- T2.2-21 Certificate of Acquaintance with Tender Document
- T2.2-22 Service Provider Integrity Pact
- T2.2-23 Supplier Code of Conduct

Insurance:

- T2.2-24 Insurance provided by the Contractor

Transnet Vendor Registration Form:

- T2.2-25 Transnet Vendor Registration Form

2.2 C1.1 Offer portion of Form of Offer & Acceptance

2.3 C1.2 Contract Data Part 2 (by the *Contractor*)

2.4 C2.2 Price List

T2.2-01 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

1. PREAMBLE AND INTRODUCTION

- 1.1. The rights and obligation of the Parties in terms of the Protection of Personal Information Act, 4 of 2013 ("POPIA") are included as forming part of the terms and conditions of this contract.

2. PROTECTION OF PERSONAL INFORMATION

- 2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013 "(POPIA)":
- consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms derived from these terms.
- 2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:
- Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.
- 2.3. The Parties acknowledge and agree that, in relation to personal information of Transnet and the information of a third party that will be processed pursuant to this Agreement , the Operator is (.....) hereinafter Operator and the Data subject is "Transnet". Operator will process personal information only with the knowledge and authorisation of Transnet and will treat personal information and the information of a third party which comes to its knowledge as confidential and will not disclose it, unless so required by law or subject to the exceptions contained in the POPIA.
- 2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.
- 2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.
- 2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent

from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.

- 2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.
- 2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).
- 2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party , cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.
- 2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.
- 2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's s possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations .
- 2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

The Operator is required to provide confirmation that all measures in terms of the POPIA are in place when processing personal information and the information of a third party received from Transnet:

YES	
------------	--

NO	
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2.13. Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.

2.14. Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on <https://www.justice.gov.za/infoereg/>, click on contact us, click on complaints.IR@justice.gov.za

3. SOLE AGREEMENT

3.1. The Agreement, constitute the sole agreement between the parties relating to the subject matter referred to in paragraph 1.1 of this and no amendment/variation/change shall be of any force and effect unless reduced to writing and signed by or on behalf of both parties.

Signed at _____ on this _____ day of _____ 20..

Name: _____

Title: _____

Signature: _____

.....

(Operator)

Authorised signatory for and on behalf of who warrants that he/she is duly authorised to sign this Agreement.

AS WITNESSES:

1. Name: _____ Signature: _____

2. Name: _____ Signature: _____

T2.2-02: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting – Day 1

This is to certify that:

(Company Name)

Represented

(Name and
Surname)

by:

Was represented at the compulsory tender clarification meeting.

Held at:	Day 1: Bidders meet at the Transnet Park Building, Robert Sobukwe Road, Bellville in the parking lot in front of the building and then move to the following sites: • Muldersvlei – 22km from Bellville • Huguenot – 43km from Bellville • Soetendal – 68km From Bellville • Gouda – 94km from Bellville • Sandhills – 97 km from Bellville	
On (date)	10 November 2025	Starting time: 10:00

Particulars of person(s) attending the meeting:

Name

Signature

Capacity

Attendance of the above company at the meeting was confirmed:

Name

Signature

**For and on Behalf of the
Employers Agent.**

Date

T2.2-02: Eligibility Criteria Schedule:

Certificate of Attendance at Tender Clarification Meeting – Day 2

This is to certify that:

Represented by: _____ (Company Name)

(Name and Surname)

Was represented at the compulsory tender clarification meeting.

Held at:	Day 2: Bidders meet by the Total garage in Touwsrivier then move to the following sites: • Hugo – 7km from Touwsrivier • Quarry – 19km from Touwsrivier • Leeu- Gamka – 208km from Touwsrivier	
On (date)	11 November 2025	Starting time: 10:00

Particulars of person(s) attending the meeting:

Name _____ Signature _____
Capacity _____

Attendance of the above company at the meeting was confirmed:

Name _____ Signature _____
**For and on Behalf of the
Employers Agent.** _____ Date _____

T2.2-03: EVALUATION SCHEDULE - Plan

The Tenderer details the plan for evaluation and attaches it to this schedule.

The Tenderer's attention is drawn to core clause 21 of the NEC3 Term Service Contract regarding the items to be shown on a plan.

Please provide your proposed plan, inclusive but not limited to the following:

The duration of the contract work is 8 (eight) weeks.

The Plan should indicate the following columns as a minimum:

Activity Number	Activity description	Start date	Finish date	Successor	Time risk allowances (TRA)
-----------------	----------------------	------------	-------------	-----------	----------------------------

The table below is for information purposes only to indicate the method of scoring that will be followed to evaluate the Plan submitted by the Tenderer:

	Plan
No Response (Score 0)	The tenderer did not submit the plan
Poor (Score 40)	> 10 weeks to complete the project
Satisfactory (Score 70)	> 9 – ≤ 10 weeks to complete the project
Good (Score 90)	> 8 – ≤ 9 weeks to complete the project
Very Good (Score 100)	≤ 8 weeks to complete the project

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the Tenderer, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct

Signed

Date

Name

Position

Tenderer

T2.2-04: Evaluation Schedule: Previous Experience

Note to tenderers:

Tenderers are required to demonstrate their relevant Experience by supplying the following:

- Sufficient references to substantiate experience indicated. Contactable references relevant to this RFQ with either a completion certificate, written reference or in execution (company name, contact person, contact no. and value of work).

Index of documentation attached to this schedule:

The table below is for information purposes only to indicate the method of scoring that will be followed to evaluate the Previous Experience submitted by the Tenderer:

	Previous Experience
No Response (Score 0)	Tenderer has submitted no information
Poor (Score 40)	Proof of experience for the supply and installation of 132kV and 66kV primary bushings for 3 kV DC Traction Transformers and refurbishment of main and auxiliary Transformers for completed projects or in execution: greater or lesser than 2
Satisfactory (Score 70)	Proof of experience for the supply and installation of 132kV and 66kV primary bushings for 3 kV DC Traction Transformers and refurbishment of main and auxiliary Transformers for completed projects or in execution: greater or equal to 3
Good (Score 90)	Proof of experience for the supply and installation of 132kV and 66kV primary bushings for 3 kV DC Traction Transformers and refurbishment of main and auxiliary Transformers for completed projects or in execution: greater or equal to 4
Very Good (Score 100)	Proof of experience for the supply and installation of 132kV and 66 kV primary bushings for 3 kV DC Traction Transformers and refurbishment of main and auxiliary Transformers for completed projects or in execution: greater or equal to 5

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the Tenderer, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct

Signed

Date

Name

Position

Tenderer

T2.2-05: Evaluation Schedule: Project Organogram, Management & CV's

The tender must be able to demonstrate that the project personnel have sufficient knowledge, experience and qualifications to provide the required services and submit the following documents as a minimum with the tender:

1. An organisation chart showing on-site and off-site management (including the key people you have identified in the Contract Data Part two and identify the required legal appointments.
2. Detailed CV's and proof of qualifications for the Project Team: Electrical installations must have a National Diploma or N6 in Electrical Engineering. The Safety Officer must be registered with the South African Council for the Project and Construction Management Professions.
3. The Individual CV's from the Project Team to indicate the relevant experience
4. Details of the location (and functions) of offices from which the *works* will be managed.
5. Details of the experience of the staff who will be working on the *works* with respect to: Working with the NEC3 Term Service Contract Option chosen for this contract. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.

Index of documentation attached to this schedule:
--

The table below is for information purposes only to indicate the method of scoring that will be followed to evaluate the Project Organogram and CV's submitted by the Tenderer:

	Plan
No Response (Score 0)	Tenderer submitted no information
Poor (Score 40)	1 of the items as specified above are addressed and is relevant to this RFP
Satisfactory (Score 70)	2 of the items as specified above are addressed and is relevant to this RFP
Good (Score 90)	4 - 3 of the items as specified above are addressed and is relevant to this RFP
Very Good (Score 100)	All of the items as specified above are addressed and is relevant to this RFP

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the Tenderer, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct

Signed

Date

Name

Position

Tenderer

T2.2-06: Health and Safety Management

Submit the following documents as a minimum with your tender:

1. Valid letter of good standing with the Workmen's Compensation Fund.
2. Bidder to provide their own Project Specific safety plan to be submitted in accordance with the OHS1993 and Transnet Rail Infrastructure Manager's Contractor Health and Safety Specification Guideline.
3. Risk assessment pertaining to related activities.
4. Safety File (Index only)
5. Safety Work Method Statement pertaining to related activities.
6. Health and Safety Appointments with certificates

Attached submissions to this schedule:

.....
.....

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2-07: Health and Safety Questionnaire

1. SAFE WORK PERFORMANCE													
1A. Injury Experience / Historical Performance - Alberta													
Use the previous three years injury and illness records to complete the following:													
Year													
Number of medical treatment cases													
Number of restricted work day cases													
Number of lost time injury cases													
Number of fatal injuries													
Total recordable frequency													
Lost time injury frequency													
Number of worker manhours													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">1 - Medical Treatment Case</td> <td>Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician</td> </tr> <tr> <td>2 - Restricted Work Day Case</td> <td>Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties</td> </tr> <tr> <td>3 - Lost Time injury Cases</td> <td>Any occupational injury that prevents the worker from performing any work for at least one day</td> </tr> <tr> <td>4 - Total Recordable Frequency</td> <td>Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours</td> </tr> <tr> <td>5- Lost Time Injury Frequency</td> <td>Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours</td> </tr> </table>				1 - Medical Treatment Case	Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician	2 - Restricted Work Day Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties	3 - Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day	4 - Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours	5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours
1 - Medical Treatment Case	Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician												
2 - Restricted Work Day Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties												
3 - Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day												
4 - Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours												
5- Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours												
1B. Workers' Compensation Experience													
Use the previous three years injury and illness records to complete the following (if applicable):													
Industry Code:		Industry Classification:											
Year													
Industry Rate													
Contractor Rate													
% Discount or Surcharge													
Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)		☐ Yes ☐ No											
2. CITATIONS													
2A.	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years?												
	☐ Yes ☐ No If yes, provide details:												
2B.	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State?												
	☐ Yes ☐ No If yes, provide details:												

3. CERTIFICATE OF RECOGNITION

Does your company have a Certificate of Recognition?

☐ Yes ☐ No If Yes, what is the Certificate No. _____ Issue Date _____

4. SAFETY PROGRAM

Do you have a written safety program manual?

☐ Yes ☐ No

If Yes, provide a copy for review

Do you have a pocket safety booklet for field distribution?

☐ Yes ☐ No

If Yes, provide a copy for review

Does your safety program contain the following elements:

	Yes	No		Yes	No
CORPORATE SAFETY POLICY	☐	☐	EQUIPMENT MAINTENANCE	☐	☐
INCIDENT NOTIFICATION POLICY	☐	☐	EMERGENCY RESPONSE	☐	☐
RECORDKEEPING & STATISTICS	☐	☐	HAZARD ASSESSMENT	☐	☐
REFERENCE TO LEGISLATION	☐	☐	SAFE WORK PRACTICES	☐	☐
GENERAL RULES & REGULATIONS	☐	☐	SAFE WORK PROCEDURES	☐	☐
PROGRESSIVE DISCIPLINE POLICY	☐	☐	WORKPLACE INSPECTIONS	☐	☐
RESPONSIBILITIES	☐	☐	INVESTIGATION PROCESS	☐	☐
PPE STANDARDS	☐	☐	TRAINING POLICY & PROGRAM	☐	☐
ENVIRONMENTAL STANDARDS	☐	☐	COMMUNICATION PROCESSES	☐	☐
MODIFIED WORK PROGRAM	☐	☐			

5. TRAINING PROGRAM

5A. Do you have an orientation program for new hire employees? ☐ Yes ☐ No

If Yes, include a course outline. Does it include any of the following:

	Yes	No		Yes	No
GENERAL RULES & REGULATIONS	☐	☐	CONFINED SPACE ENTRY	☐	☐
EMERGENCY REPORTING	☐	☐	TRENCHING & EXCAVATION	☐	☐
INJURY REPORTING	☐	☐	SIGNS & BARRICADES	☐	☐
LEGISLATION	☐	☐	DANGEROUS HOLES & OPENINGS	☐	☐
RIGHT TO REFUSE WORK	☐	☐	RIGGING & CRANES	☐	☐
PERSONAL PROTECTIVE EQUIPMENT	☐	☐	MOBILE VEHICLES	☐	☐
EMERGENCY PROCEDURES	☐	☐	PREVENTATIVE MAINTENANCE	☐	☐
PROJECT SAFETY COMMITTEE	☐	☐	HAND & POWER TOOLS	☐	☐
HOUSEKEEPING	☐	☐	FIRE PREVENTION & PROTECTION	☐	☐
LADDERS & SCAFFOLDS	☐	☐	ELECTRICAL SAFETY	☐	☐
FALL ARREST STANDARDS	☐	☐	COMPRESSED GAS CYLINDERS	☐	☐
AERIAL WORK PLATFORMS	☐	☐	WEATHER EXTREMES	☐	☐

5B. Do you have a program for training newly hired or promoted supervisors? ☐ Yes ☐ No (If Yes, submit an outline for evaluation. Does it include instruction on the following:					
	Yes	No		Yes	No
EMPLOYER RESPONSIBILITIES	☐	☐	SAFETY COMMUNICATION	☐	☐
EMPLOYEE RESPONSIBILITIES	☐	☐	FIRST AID/MEDICAL PROCEDURES	☐	☐
DUE DILIGENCE	☐	☐	NEW WORKER TRAINING	☐	☐
SAFETY LEADERSHIP	☐	☐	ENVIRONMENTAL REQUIREMENTS	☐	☐
WORK REFUSALS	☐	☐	HAZARD ASSESSMENT	☐	☐
INSPECTION PROCESSES	☐	☐	PRE-JOB SAFETY INSTRUCTION	☐	☐
EMERGENCY PROCEDURES	☐	☐	DRUG & ALCOHOL POLICY	☐	☐
INCIDENT INVESTIGATION	☐	☐	PROGRESSIVE DISCIPLINARY POLICY	☐	☐
SAFE WORK PROCEDURES	☐	☐	SAFE WORK PRACTICES	☐	☐
SAFETY MEETINGS	☐	☐	NOTIFICATION REQUIREMENTS	☐	☐

6. SAFETY ACTIVITIES

Do you conduct safety inspections? Yes No Weekly Monthly Quarterly
☐ ☐ ☐ ☐ ☐

Describe your safety inspection process (include participation, documentation requirements, follow-up, report distribution).

Who follows up on inspection action items?

Do you hold site safety meetings for field employees? If Yes, how often?
Yes No Daily Weekly Biweekly
☐ ☐ ☐ ☐ ☐

Do you hold site meetings where safety is addressed with management and field supervisors?
Yes No Weekly Biweekly Monthly
☐ ☐ ☐ ☐ ☐

Is pre-job safety instruction provided before to each new task? ☐ Yes ☐ No

Is the process documented? ☐ Yes ☐ No

Who leads the discussion?

Do you have a hazard assessment process? ☐ Yes ☐ No

- Are hazard assessments documented? If yes, how are hazard assessments communicated and implemented on each project? Who is responsible for leading the hazard assessment process?

Does your company have policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?
☐ Yes ☐ No

How does your company measure its H&S success?

- Attach separate sheet to explain

7. SAFETY STEWARDSHIP

7A Are incident reports and report summaries sent to the following and how often?

	Yes	No	Monthly	Quarterly	Annually
Project/Site Manager	☐	☐	☐	☐	☐
Managing Director	☐	☐	☐	☐	☐
Safety Director/Manager	☐	☐	☐	☐	☐
/Chief Executive Officer	☐	☐	☐	☐	☐

7B How are incident records and summaries kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Incidents totaled for the entire company	☐	☐	☐	☐	☐
Incidents totaled by project	☐	☐	☐	☐	☐
• Subtotaled by superintendent	☐	☐	☐	☐	☐
• Subtotaled by foreman	☐	☐	☐	☐	☐

7C How are the costs of individual incidents kept? How often are they reported internally?

	Yes	No	Monthly	Quarterly	Annually
Costs totaled for the entire company	☐	☐	☐	☐	☐
Costs totaled by project	☐	☐	☐	☐	☐
• Subtotaled by superintendent	☐	☐	☐	☐	☐
• Subtotaled by foreman/general foreman	☐	☐	☐	☐	☐

7D Does your company track non-injury incidents?

	Yes	No	Monthly	Quarterly	Annually
Near Miss	☐	☐	☐	☐	☐
Property Damage	☐	☐	☐	☐	☐
Fire	☐	☐	☐	☐	☐
Security	☐	☐	☐	☐	☐
Environmental	☐	☐	☐	☐	☐

8 PERSONNEL

List key health and safety officers planned for this project. Attach resume.

Name	Position/Title	Designation
Supply name, address and phone number of your company's corporate health and safety representative. Does this individual have responsibilities other than health, safety and environment?		
Name	Address	Telephone Number

Other responsibilities:

9 REFERENCES

List the last three company's your form has worked for that could verify the quality and management commitment to your occupational Health & Safety program

Name and Company	Address	Phone Number

T2.2-08: Environmental Management

The Tenderer must review the following documents for context to meet the environmental requirements, namely:

- Transnet SOC Limited – TFR Standard Environmental Specification (TFR / EMS (SES) – 001);
 1. The tenderer must provide evidence of how their Environmental Management System (EMS) will ensure conformance to the abovementioned requirements
 2. The tenderer must provide an environmental policy signed by Top Management which, as a minimum:
 - Details the Managements commitment to preventing and controlling environmental impacts.
 3. The tenderer must provide specific Environmental Management Plan which describes relevant roles and responsibilities, and how potential environmental impacts will be identified and managed including the monitoring and recording thereof.

NB: By signing this Tender Schedule, the tenderer confirms that they will comply with the above requirements and in particular Transnet policy statements and environmental specifications.

Signed	_____	Date	_____
Name	_____	Position	_____
Tenderer	_____		

T2.2-09: Quality Management

The tenderer is to note that if successful, and awarded the contract, shall execute and complete the contract as per the Quality Management stated in the Service Information and should include but not be limited to the following.

1. Project Quality Plan which satisfies the technical and quality requirements of the service, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the Service Information.
2. Check list of procedures and method statements to be used during the contract.
3. A signed Quality Policy

Attached submissions to this schedule:

.....
.....
.....
.....

Signed		Date	
Name		Position	
Tenderer			

T2.2-10: Authority to submit a Tender

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

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

A. Certificate for Company

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

Signed

Date

Name

Position

Chairman of the Board of Directors

B. Certificate for Partnership

We, the undersigned, being the **key partners** in the business trading as _____

_____ hereby authorise Mr/Ms _____

acting in the capacity of _____, to sign all documents in

connection with the tender offer for Contract _____ and any

contract resulting from it on our behalf.

Name	Address	Signature	Date

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

C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise

Mr/Ms _____, an authorised signatory of the company

_____, acting in the capacity of lead

partner, to sign all documents in connection with the tender offer for Contract _____

_____ and any contract resulting from it on our behalf.

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

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

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

D. Certificate for Sole Proprietor

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

Signed

Date

Name

Position

Sole Proprietor

T2.2-11: Record of Addenda to Tender Documents

This schedule as submitted confirms 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 specific tender offer:

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

Signed

Date

Name

Position

Tenderer

T2.2-12 Letter/s of Good Standing with the Workmen's Compensation Fund

Attached to this schedule is the Letter/s of Good Standing.

Name of Company/Members of Joint Venture:

.....
.....
.....
.....
.....
.....
.....
.....

Signed

Date

Name

Position

Tenderer

T2.2-13: Risk Elements

Tenderers to identify and evaluate the potential risk elements associated with the Service and possible mitigation thereof. The risk elements and the mitigation as identified thereof by the Tenderer are to be submitted.

If No Risks are identified "No Risks" must be stated on this schedule.

Tenderers are also to evaluate any risk/s stated by the *Employer* in Contract Data Part C1, and provide possible mitigation thereof.

[illegible]

Tenders to note: Notwithstanding this information, all costs related to risk elements which are at the Contractor's risk are deemed to be included in the tenderer's offered total of the Prices.

Signed _____ Date _____

Name	Position
------	----------

Tenderer

The Tenderer to submit a list of all Equipment and other resources that will be used to execute the *service* as described in the Service Information.

[illegible]

Date _____

Position

Tenderer

T2.2-15: Schedule of Proposed Subcontractors

The tenderer is required to provide details of all the sub-contractors that will be utilised in the execution of the *service*.

Note to tenderers:

- A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBBEE status level of contributor that the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the contract.

Tenderer to note that after award, any deviations from this list of proposed sub-contractors will be subject to acceptance by the *Service Manager* in terms of the Conditions of Contract.

Provide information of the Sub-contractors below:

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	☐	☐	☐	☐	☐	☐		☐	

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	☐	☐	☐	☐	☐	☐		☐	

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	☐	☐	☐	☐	☐	☐		☐	

Name of Proposed Subcontractor			Address		Nature of work		Amount of Worked	Percentage of work	
% Black Owned	EME	QSE	Youth	Women	Disabilities	Rural/ Underdeveloped areas/ Townships		Military Veterans	
	☐	☐	☐	☐	☐	☐		☐	

Signed

Date

Name

Position

Tenderer

T2.2-16: Affected Property Establishment Requirements

Tenderers to indicate their Affected Property establishment area requirements:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is a solid black vertical line along the left edge, which serves as a margin. The paper appears to be from a notebook or a set of legal pads.

Signed _____ Date _____

Name	Position
------	----------

Tenderer

T2.2-17: ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member 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: CSD number: _____

Section 5: 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 6: Particulars of companies and close corporations

Company registration number _____

Close corporation number _____

Tax reference number: _____

Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.

Section 8: The attached SBD 6 must be completed for each tender and be attached as a requirement.

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

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

Signed	_____	Date	_____
Name	_____	Position	_____
Enterprise name	_____		

SBD 6.1

PREFERENCE POINTS CLAIM FORM

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for Specific Goals contribution. Transnet will award preference points to companies who provide valid proof of evidence as per the table of evidence in paragraph 4.1 below.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.

1.3 Preference points for this bid shall be awarded for:

- (a) Price;
- (b) B-BBEE Status Level of Contribution; and
- (c) Any other specific goal determined in the Transnet preferential procurement policy

1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION Level 1 or 2 – 6 Points allocated. 30% Black Women Owned Entities – 4 Points allocated. 50% Black Youth Owned Entities – 4 Points allocated. EME or QSE entities that are at least 51% Black Owned – 6 Points	20
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of evidence required for any of the specific goals together with the bid will be interpreted to mean that preference points for that

specific goal are not claimed.

- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"**
 - i) the B-BBEE status level certificate issued by an authorised body or person;
 - ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
 - iii) any other requirement prescribed in terms of the B-BBEE Act.
- (j) **"QSE"** means a Qualifying Small Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

- (l) **Specific goals** means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:
80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of bid under consideration

P_t = Comparative price of bid under consideration

$P_{\min}$ = Comparative price of lowest acceptable bid

4. EVIDENCE REQUIRED FOR CLAIMING SPECIFIC GOALS

- 4.1 In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, preference points must be awarded to a bidder for providing evidence in accordance with the table below:

Specific Goals	Acceptable Evidence
B-BBEE	B-BBEE Certificate / Sworn-Affidavit B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
30% Black Women Owned Entities	B-BBEE Certificate / Sworn-Affidavit / CIPC B-BBEE Certificate (in case of JV, a consolidate scorecard will be accept) as per DTIC guidelines
50% Black Youth Owned Entities	Certified copy of ID Documents of the Owners and B-BBEE Certificate / Affidavit (in case of JV, a consolidate scorecard will be accept)
EME or QSE entities that are at least 51% Black Owned	B-BBEE Certificate / Sworn-Affidavit / CIPC Certificate

- 4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned) [Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at www.dti.gov.za/economic_empowerment/bee_codes.jsp .]
EME	Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard

- 4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.
- 4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

5. BID DECLARATION

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

6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1

- 6.1 B-BBEE Status Level of Contribution: . = 20 (maximum of 20 points)

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

- 7.1 Will any portion of the contract be sub-contracted?

(***Tick applicable box***)

YES		NO	
-----	--	----	--

- 7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE.

(***Tick applicable box***)

YES		NO	
-----	--	----	--

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One person business/sole propriety
- ☐ Close corporation
- ☐ Company
- ☐ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier
- ☐ Professional Service provider
- ☐ Other Service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If a bidder submitted false information regarding its B-BBEE status level of contributor,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
 - (a) disqualify the person from the bidding process;

- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
- (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (f) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....

SIGNATURE(S) OF BIDDERS(S)

DATE:

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners

or any person having a controlling interest¹ in the enterprise,
employed by the state?

YES/NO

- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of institution	State

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

- 2.2.1 If so, furnish particulars:

.....
.....

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

- 2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

I, _____ the _____ undersigned,

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

(name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

FALSE.

.....	
Signature	Date
.....	
Position	Name of bidder

T2.2-18 NON-DISCLOSURE AGREEMENT

Note to tenderers: This Non-Disclosure Agreement is to be completed and signed by an authorised signatory:

THIS AGREEMENT is made effective as of day of 20..... by and between:

TRANSNET SOC LTD

(Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at Transnet Corporate Centre 138 Eloff Street , Braamfontein , Johannesburg 2000

And

.....

(Registration No.), a private company incorporated and existing under the laws of South Africa having its principal place of business at

.....

.....

WHEREAS

Transnet and the Company wish to exchange Information [as defined below] and it is envisaged that each party may from time to time receive Information relating to the other in respect thereof. In consideration of each party making available to the other such Information, the parties jointly agree that any dealings between them shall be subject to the terms and conditions of this Agreement which themselves will be subject to the parameters of the Tender Document.

IT IS HEREBY AGREED

1. INTERPRETATION

In this Agreement:

- 1.1 **Agents** mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;
- 1.2 **Bid or Bid Document** (hereinafter Tender) means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] or Request for Quotation [**RFQ**], as the case may be;
- 1.3 **Confidential Information** means any information or other data relating to one party [the **Disclosing Party**] and/or the business carried on or proposed or intended to be carried on by that party and which is made available for the purposes of the Bid to the other party [the **Receiving Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise, including any information, analysis or specifications derived from, containing or reflecting such information but excluding information which:

- 1.3.1 is publicly available at the time of its disclosure or becomes publicly available [other than as a result of disclosure by the Receiving Party or any of its Agents contrary to the terms of this Agreement]; or
- 1.3.2 was lawfully in the possession of the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] free of any restriction as to its use or disclosure prior to its being so disclosed; or
- 1.3.3 following such disclosure, becomes available to the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] from a source other than the Disclosing Party or its Agents, which source is not bound by any duty of confidentiality owed, directly or indirectly, to the Disclosing Party in relation to such information;
- 1.4 **Group** means any subsidiary, any holding company and any subsidiary of any holding company of either party; and
- 1.5 **Information** means all information in whatever form including, without limitation, any information relating to systems, operations, plans, intentions, market opportunities, know-how, trade secrets and business affairs whether in writing, conveyed orally or by machine-readable medium.

2 CONFIDENTIAL INFORMATION

- 2.3 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.
- 2.4 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Tender or for the subsequent performance of any contract between the parties in relation to the Tender.
- 2.5 Notwithstanding clause 2.3 above, the Receiving Party may disclose Confidential Information:
 - 2.5.2 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.4 above, provided that the Receiving Party shall ensure that such Agents are made aware prior to the disclosure of any part of the Confidential Information that the same is confidential and that they owe a duty of confidence to the Disclosing Party. The Receiving Party shall at all times remain liable for any actions of such Agents that would constitute a breach of this Agreement; or
 - 2.5.3 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.6 below.
- 2.6 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.5.3 above, it shall promptly notify the Disclosing Party and cooperate with the Disclosing Party regarding the form, nature, content and purpose of such disclosure or any action which the Disclosing Party may reasonably take to challenge the validity of such requirement.
- 2.7 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.

- 2.8 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

3 RECORDS AND RETURN OF INFORMATION

- 3.3 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.
- 3.4 The Receiving Party shall keep a written record, to be supplied to the Disclosing Party upon request, of the Confidential Information provided and any copies made thereof and, so far as is reasonably practicable, of the location of such Confidential Information and any copies thereof.
- 3.5 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:
- 3.5.2 return all written Confidential Information [including all copies]; and
- 3.5.3 expunge or destroy any Confidential Information from any computer, word processor or other device whatsoever into which it was copied, read or programmed by the Company or on its behalf.
- 3.6 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.5.3 above.

4 ANNOUNCEMENTS

- 4.3 Neither party will make or permit to be made any announcement or disclosure of its prospective interest in the Tender without the prior written consent of the other party.
- 4.4 Neither party shall make use of the other party's name or any information acquired through its dealings with the other party for publicity or marketing purposes without the prior written consent of the other party.

5 DURATION

The obligations of each party and its Agents under this Agreement shall survive the termination of any discussions or negotiations between the parties regarding the Tender and continue thereafter for a period of 5 [five] years.

6 PRINCIPAL

Each party confirms that it is acting as principal and not as nominee, agent or broker for any other person and that it will be responsible for any costs incurred by it or its advisers in considering or pursuing the Tender and in complying with the terms of this Agreement.

7 ADEQUACY OF DAMAGES

Nothing contained in this Agreement shall be construed as prohibiting the Disclosing Party from pursuing any other remedies available to it, either at law or in equity, for any such threatened or actual breach of this Agreement, including specific performance, recovery of damages or otherwise.

8 PRIVACY AND DATA PROTECTION

- 8.3 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Tender and shall procure that its personnel shall observe the provisions of such Act [as applicable] or any amendments and re-enactments thereof and any regulations made pursuant thereto.

- 8.4 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Tender and against accidental loss or destruction of, or damage to such data held or processed by them.

9 GENERAL

- 9.3 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.
- 9.4 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.
- 9.5 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.
- 9.6 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.
- 9.7 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.
- 9.8 This Agreement will be governed by and construed in accordance with South African law and the parties irrevocably submit to the exclusive jurisdiction of the South African courts.

Signed

Date

Name

Position

Tenderer

T2.2-19: RFP DECLARATION FORM

NAME OF COMPANY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this tender and the requirements requested from tenderers in responding to this tender have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below:

[Respondent to indicate if this section is not applicable]

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

Indicate nature of relationship with Transnet:

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

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.
8. We have acquainted ourselves and agree with the content of **T2.2-25** "Service Provider Integrity Pact".

For and on behalf of duly authorised thereto
Name:
Signature:
Date:

IMPORTANT NOTICE TO TENDERERS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Tenderer have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet's website www.transnet.net.

- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to procurement.ombud@transnet.net
- For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
- All Tenderers should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a tenderer on its List of Excluded Bidders.

T2.2-20: REQUEST FOR PRICE – BREACH OF LAW

NAME OF COMPANY: _____

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

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

NATURE OF BREACH:

DATE OF BREACH:

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

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDER

T2.2-21 Certificate of Acquaintance with Tender Documents

NAME OF TENDERING ENTITY:

1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFQ. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.
2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any tender/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.
3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.
4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) has been requested to submit a Tender in response to this Tender invitation;
 - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - c) provides the same Services as the Tenderer and/or is in the same line of business as the Tenderer
5. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.
6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- a) prices;
 - b) geographical area where Services will be rendered [market allocation]
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - f) Tendering with the intention not winning the tender.
7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.
8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.
9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed on this _____ day of _____ 20____

SIGNATURE OF TENDERER

T2.2-22 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFQ Declaration Form that they have acquainted themselves with and agree with the content.

The contract with the successful tenderer will automatically incorporate this Integrity Pact and shall be deemed as part of the final concluded contract.

INTEGRITY PACT

Between

TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

The Contractor (hereinafter referred to as the "Tenderer/Service Providers/Contractor")

PREAMBLE

Transnet values full compliance with all relevant laws and regulations, ethical standards and the principles of economical use of resources, fairness and transparency in its relations with its Tenderers/Service Providers/Contractors.

In order to achieve these goals, Transnet and the Tenderer/Service Provider/Contractor hereby enter into this agreement hereinafter referred to as the "Integrity Pact" which will form part of the Tenderer's/Service Provider's/Contractor's application for registration with Transnet as a vendor.

The general purpose of this Integrity Pact is to agree on avoiding all forms of dishonesty, fraud and corruption by following a system that is fair, transparent and free from any undue influence prior to, during and subsequent to the currency of any procurement and/or reverse logistics event and any further contract to be entered into between the Parties, relating to such event.

All Tenderers/Service Providers/Contractor's will be required to sign and comply with undertakings contained in this Integrity Pact, should they want to be registered as a Transnet vendor.

1 OBJECTIVES

- 1.1 Transnet and the Tenderer/Service Provider/Contractor agree to enter into this Integrity Pact, to avoid all forms of dishonesty, fraud and corruption including practices that are anti-competitive in nature, negotiations made in bad faith and under-pricing by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:
 - a) Enable Transnet to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works, goods and services; and
 - b) Enable Tenderers/Service Providers/Contractors to abstain from bribing or participating in any corrupt practice in order to secure the contract.

2 COMMITMENTS OF TRANSNET

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:

- 2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage

from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering process, Tender evaluation, contracting or implementation process related to any contract.

- 2.2 Transnet will, during the registration and tendering process treat all Tenderers/Service Providers/Contractor with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers/Service Providers/Contractors the same information and will not provide to any Tenderers/Service Providers/Contractors confidential/additional information through which the Tenderers/Service Providers/Contractors could obtain an advantage in relation to any tendering process.
- 2.3 Transnet further confirms that its employees will not favour any prospective Tenderers/Service Providers/Contractors in any form that could afford an undue advantage to a particular Tenderer during the tendering stage, and will further treat all Tenderers/Service Providers/Contractors participating in the tendering process in a fair manner.
- 2.4 Transnet will exclude from the tender process such employees who have any personal interest in the Tenderers/Service Providers/Contractors participating in the tendering process.

3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER

- 3.1 Transnet has a '**Zero Gifts**' Policy. No employee is allowed to accept gifts, favours or benefits.
 - a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.
 - b) Transnet officials and employees **shall not** solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.
 - c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.
 - d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special

privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.

3.2 The Tenderer/Service Provider/Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer/Service Provider/Contractor commits to the following:

- a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
- b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.

3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.

3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.

3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

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- 3.6 A Tenderer/Service Provider/Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.
- 3.7 The Tenderer/Service Provider/Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer/Service Provider/Contractor or detriment of Transnet or other competitors.
- 3.8 Transnet may require the Tenderer/Service Provider/Contractor to furnish Transnet with a copy of its code of conduct. Such code of conduct must address the compliance programme for the implementation of the code of conduct and reject the use of bribes and other dishonest and unethical conduct.
- 3.9 The Tenderer/Service Provider/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 3.10 The Tenderer/Service Provider/Contractor confirms that they will uphold the ten principles of the United Nations Global Compact (UNGC) in the fields of Human Rights, Labour, Anti-Corruption and the Environment when undertaking business with Transnet as follows:
- a) Human Rights
- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
 - Principle 2: make sure that they are not complicit in human rights abuses.
- b) Labour
- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
 - Principle 4: the elimination of all forms of forced and compulsory labour;
 - Principle 5: the effective abolition of child labour; and
 - Principle 6: the elimination of discrimination in respect of employment and occupation.
- c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
 - Principle 8: undertake initiatives to promote greater environmental responsibility; and
 - Principle 9: encourage the development and diffusion of environmentally friendly technologies.
- d) Anti-Corruption
- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

4 INDEPENDENT TENDERING

- 4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
- a) has been requested to submit a Tender in response to this Tender invitation;
 - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
 - c) provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.
- 4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.
- 4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- a) prices;
 - b) geographical area where Goods or Services will be rendered [market allocation];
 - c) methods, factors or formulas used to calculate prices;
 - d) the intention or decision to submit or not to submit, a Tender;
 - e) the submission of a Tender which does not meet the specifications and conditions of the RFQ; or
 - f) tendering with the intention of not winning the Tender.

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- 4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Goods or Services to which his/her tender relates.
- 4.5 The terms of the Tender as submitted have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
- 4.6 Tenderers are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority **[NPA]** for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- 4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

5 DISQUALIFICATION FROM TENDERING PROCESS

- 5.1 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer/Service Provider/Contractor into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer/Service Provider/Contractor from its database, if already registered.
- 5.2 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer/Service Provider/Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst

others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer/Service Provider/Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.

- 5.3 If the Tenderer/Service Provider/Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)

- 6.1 The process of restriction is used to exclude a company/person from conducting future business with Transnet and other organs of state for a specified period. No Tender shall be awarded to a Tenderer whose name (or any of its members, directors, partners or trustees) appear on the Register of Tender Defaulters kept by National Treasury, or who have been placed on National Treasury's List of Restricted Suppliers. Transnet reserves the right to withdraw an award, or cancel a contract concluded with a Tenderer should it be established, at any time, that a tenderer has been restricted with National Treasury by another government institution.
- 6.2 All the stipulations on Transnet's restriction process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual (CPM included) are included herein by way of reference. Below follows a condensed summary of this restriction procedure.
- 6.3 On completion of the restriction procedure, Transnet will submit the restricted entity's details (including the identity number of the individuals and registration number of the entity) to National Treasury for placement on National Treasury's Database of Restricted Suppliers for the specified period of exclusion. National Treasury will make the final decision on whether to restrict an entity from doing business with any organ of state for a period not exceeding 10 years and place the entity concerned on the Database of Restricted Suppliers published on its official website.
- 6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.
- 6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future

business, Transnet may decide to terminate some or all existing contracts with the company/person as well.

6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.

6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:

- a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
- b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;
- c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
- d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
- e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;
- f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:
 - (i) he made the statement in good faith honestly believing it to be correct; and
 - (ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;
- g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;
- h) has litigated against Transnet in bad faith.

6.8 Grounds for blacklisting include a company/person recorded as being a company or person prohibited from doing business with the public sector on National

Treasury's database of Restricted Service Providers or Register of Tender Defaulters.

- 6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

7 PREVIOUS TRANSGRESSIONS

- 7.1 The Tenderer/Service Provider/Contractor hereby declares that no previous transgressions resulting in a serious breach of any law, including but not limited to, corruption, fraud, theft, extortion and contraventions of the Competition Act 89 of 1998, which occurred in the last 5 (five) years with any other public sector undertaking, government department or private sector company that could justify its exclusion from its registration on the Tenderer's/Service Provider's/Contractor's database or any tendering process.
- 7.2 If it is found to be that the Tenderer/Service Provider/Contractor made an incorrect statement on this subject, the Tenderer/Service Provider/Contractor can be rejected from the registration process or removed from the Tenderer/Service Provider/Contractor database, if already registered, for such reason (refer to the Breach of Law Returnable Form contained in the document.)

8 SANCTIONS FOR VIOLATIONS

- 8.1 Transnet shall also take all or any one of the following actions, wherever required to:
- a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation to the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/Service Provider/Contractor may continue;
 - b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;
 - c) Recover all sums already paid by Transnet;
 - d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer/Service Provider/Contractor, in order to recover the payments, already made by Transnet, along with interest;
 - e) Cancel all or any other contracts with the Tenderer/Service Provider/Contractor; and

- f) Exclude the Tenderer/ Service Provider/Contractor from entering into any Tender with Transnet in future.

9 CONFLICTS OF INTEREST

9.1 A conflict of interest includes, inter alia, a situation in which:

- a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and
- b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.

9.2 A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:

- a) Private gain or advancement; or
- b) The expectation of private gain, or advancement, or any other advantage accruing to the employee must be declared in a prescribed form.

Thus, conflicts of interest of any Tender committee member or any person involved in the sourcing process must be declared in a prescribed form.

9.3 If a Tenderer/Service Provider/Contractor has or becomes aware of a conflict of interest i.e. a family, business and / or social relationship between its owner(s)/ member(s)/director(s)/partner(s)/shareholder(s) and a Transnet employee/ member of Transnet's Board of Directors in respect of a Tender which will be considered for the Tender process, the Tenderer/Service Provider/ Contractor:

- a) must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or
- b) must notify Transnet immediately in writing once the circumstances has arisen.

9.4 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.

10 DISPUTE RESOLUTION

10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever

possible. Litigation in bad faith negates the principles of trust and good faith on which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 6 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:

- a) **Vexatious proceedings:** these are frivolous proceedings which have been instituted without proper grounds;
- b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
- c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
- d) **Abuse of court process:** when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

11 GENERAL

- 11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.
- 11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.
- 11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.
- 11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.
- 11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet official/employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.

I duly authorised by the tendering entity, hereby certify that the tendering entity are **fully acquainted** with the contents of the Integrity Pact and further **agree to abide by it** in full.

Signature

Date

T2.2-23 : Supplier Code of Conduct

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

- The Transnet Procurement Policy – A guide for Tenderers.
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

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

1. Transnet SOC Limited will not participate in corrupt practices. Therefore, it expects its suppliers to act in a similar manner.

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.
- Employees may not receive anything that is calculated to:

- Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
- Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
- Gain an improper advantage.
- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our “Tip-offs Anonymous” Hot line to report these acts. (0800 003 056).

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

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

3. *Transnet’s relationship with suppliers requires us to clearly define requirements, to exchange information and share mutual benefits.*

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
 - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
 - Collusion;
 - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
 - Corrupt activities listed above; and
 - Harassment, intimidation or other aggressive actions towards Transnet employees.

-
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
 - Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

Conflicts of Interest

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

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

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

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

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

Signed this on day _____ at

Signature

T2.2-24: Insurance provided by the *Contractor*

Clause 83.1 in NEC3 Term Service Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

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

Insurance against (See clause 83.1 of the TSC)	Name of Insurance Company	Cover	Premium
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000.			
Insurance in respect of loss of or damage to own property and equipment.			

Signed

Date

Name

Position

Tenderer

T2.2-25 SUPPLIER DECLARATION FORM

Transnet Vendor Management has received a request to load / change your company details onto the Transnet vendor master database. Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents as per Appendix A to the Transnet Official who is intending to procure your company's services / products, to enable us to process this request. Please only submit the documentation relevant to your request.

Please Note: all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury's Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

General Terms and Conditions:

Please Note: Failure to submit the relevant documentation will delay the vendor creation / change process.

Where applicable, the respective Transnet Operating Division processing your application may request further or additional information from your company.

The Service Provider warrants that the details of its bank account ("the nominated account") provided herein, are correct and acknowledges that payments due to the Supplier will be made into the nominated account. If details of the nominated account should change, the Service Provider must notify Transnet in writing of such change, failing which any payments made by Transnet into the nominated account will constitute a full discharge of the indebtedness of Transnet to the Supplier in respect of the payment so made. Transnet will incur no liability for any payments made to the incorrect account or any costs associated therewith. In such an event, the Service Provider indemnifies and holds Transnet harmless in respect of any payments made to an incorrect bank account and will, on demand, pay Transnet any costs associated herewith.

Transnet expects its suppliers to timeously renew their Tax Clearance and B-BBEE certificates (Large Enterprises and QSEs less than 51% black owned) as well as sworn affidavits in the case of EMEs and QSEs with more than 51% black ownership as per Appendices C and D.

In addition, please take note of the following very important information:

1. If your annual turnover is R10 million or less, then in terms of the DTI Generic Codes of Good Practice, you are classified as an Exempted Micro Enterprise (EME). If your company is classified as an EME, please include in your submission a sworn affidavit confirming your company's most recent annual turnover is less than R10 million and percentage of black ownership and black female ownership in the company (Appendix C) OR B-BBEE certificate issued by a verification agency accredited by SANAS in terms of the EME scorecard should you feel you will be able to attain a better B-BBEE score. It is only in this context that an EME may submit a B-BBEE verification certificate. These EME sworn affidavits must be accepted by the . Government introduced this mechanism specifically to reduce the cost of doing business and regulatory burden for these entities and the template for the sworn affidavit is available at no cost on the website www.thedti.gov.za or EME certificates at CIPC from www.cipic.co.za.

The B-BBEE Commission said "that only time an EME can be verified by a SANAS accredited verification professional is when it wishes to maximise its B-BBEE points and move to a higher B-BBEE recognition level, and that must be done use the QSE Scorecard".

2. If your annual turnover is between R10 million and R50 million, then in terms of the DTI codes, you are classified as a Qualifying Small Enterprise (QSE). A QSE which is at least 51% black owned, is required to submit a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership (Appendix D). QSE that does not qualify for 51% of black ownership, are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS their QSEs are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS.

Please Note: B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).

3. If your annual turnover exceeds R50 million, then in terms of the DTI codes, you are classified as a Large Enterprise. Large Enterprises are required to submit a B-BBEE level verification certificate issued by a verification agency accredited by SANAS.

Please Note: B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).

4. The supplier to furnish proof to the procurement department as required in the Fourth Schedule of the Income Tax Act. 58 of 1962 whether a supplier of service is to be classified as an "employee", "personal service provider" or "labour broker". Failure to do so will result in the supplier being subject to employee's tax.

5. No payments can be made to a vendor until the vendor has been registered / updated, and no vendor can be registered / updated until the vendor application form, together with its supporting documentation, has been received and processed. No payments can be made to a vendor until the vendor has met / comply with the procurement requirements.

6. It is in line with PPPFA Regulations, only valid B-BBEE status level certificate issued by an unauthorised body or person OR a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice, OR any other requirement prescribed in terms of the Broad- Based Black Economic Empowerment Act.

7. The B-BBEE Commission advises entities and organs of state to reject B-BBEE certificates that have been issued by verification agencies or professionals who are not accredited by South African National Accreditation Systems ("SANAS) as such B-BBEE certificates are invalid for lack of authority and mandate to issue them. A list of SANAS Accredited agencies is available on the SANAS website at www.sanas.co.za.

8. Presenting banking details. Please note: Banks have decided to enable the customers and provide the ability for customers to generate Account Confirmation/Bank Account letters via their online platform; this is a digital approach to the authentication of banking details.

SUPPLIER DECLARATION FORM

Supplier Declaration Form

Important Notice: all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

CSD Number (MAAA xxxxxx):

Company Trading Name						
Company Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Company Income Tax Number						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt	Provincial Govt	Local Govt
	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Did your company previously operate under another name?					Yes	No
If YES state the previous details below:						
Trading Name						
Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt	Provincial Govt	Local Govt
	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Your Current Company's VAT Registration Status	
VAT Registration Number	
If Exempted from VAT registration , state reason and submit proof from SARS in confirming the exemption status	

If your business entity is not VAT Registered, please submit a current original sworn affidavit (see example in Appendix I). Your Non VAT Registration must be confirmed annually.

Company Banking Details	Bank Name	
Universal Branch Code	Bank Account Number	

Company Physical Address		Code	
Company Postal Address		Code	
Company Telephone number			
Company Fax Number			
Company E-Mail Address			
Company Website Address			

Company Contact Person Name	
Designation	
Telephone	
Email	

Is your company a Labour Broker?	Yes	No
Main Product / Service Supplied e.g. Stationery / Consulting / Labour etc.		
How many personnel does the business employ?	Full Time	Part Time
Please Note: Should your business employ more than 2 full time employees who are not connected persons as defined in the Income Tax Act, please submit a sworn affidavit, as per Appendix II.		

Most recent Financial Year's Annual Turnover	<R10Million EME	>R10Million <R50Million QSE	>R50Million Large Enterprise
--	---------------------------	--	--

Does your company have a valid proof of B-BBEE status?						Yes			No		
Please indicate your Broad Based BEE status (Level 1 to 9)	1	2	3	4	5	6	7	8	9		

Majority Race of Ownership									
% Black Ownership		% Black Women Ownership		% Black Disabled person(s) Ownership		% Black Youth Ownership			
% Black Unemployed		% Black People Living in Rural Areas		% Black Military Veterans					

Please Note: Please provide proof of B-BBEE status as per Appendix C and D:

- Large Enterprise and QSEs with less than 51% black ownership need to obtain a B-BBEE certificate and detailed scorecard from an accredited rating agency;
- EMEs and QSEs with at least 51% black ownership may provide an affidavit using the templates provided in Appendix C and D respectively;
- Black Disabled person(s) ownership will only be accepted if accompanied with a certified letter signed by a physician on the physician's letterhead confirming the disability;
- A certified South African identification document will be required for all Black Youth Ownership.

Supplier Development Information Required

EMPOWERING SUPPLIER

An Empowering Supplier is a B-BBEE compliant Entity which complies with at least three criteria if it is a large Entity, or one criterion if it is a Qualifying Small Enterprise ("QSE"), as detailed in Statement 400 of the New Codes.

In terms of the requirements of an Empowering Supplier, numerous companies found it challenging to meet the target of 25% transformation of raw materials or beneficiation including local manufacturing, particularly so, if these companies imported goods or products from offshore. The matter was further compounded by the requirement for 25% of Cost of Sales, excluding labour cost and depreciation, to be procured from local producers or suppliers.

YES ☐ NO ☐

FIRST TIME SUPPLIER

A supplier that we haven't as yet Traded within Transnet and will be registered via our database for the 1st time.

YES ☐ NO ☐

SUPPLIER DEVELOPMENT PLAN

Supplier Development Plan is a plan that when we as Transnet award a supplier a long term contract depending on the complexity of the Transaction. We will negotiate supplier development obligations that they must meet throughout the contract duration. e.g. we might request that they (create jobs or do skills development or encourage procurement from designated groups. (BWO, BYO & BDO etc.).

YES ☐ NO ☐

DEVELOPMENT PLAN DOCUMENT

YES ☐ NO ☐

Agreed plan that will be crafted with the supplier in regards to their development (It could be for ED OR SD in terms of their developmental needs they may require with the company).	*If Yes- Attach supporting documents
ENTERPRISE DEVELOPMENT BENEFICIARY A supplier that is not as yet in our value chain that we are assisting in their developmental area.	YES ☐ NO ☐
SUPPLIER DEVELOPMENT BENEFICIARY A supplier that we are already doing business with or transacting with and we are also assisting them in their developmental area e.g. (They might require training or financial assistance etc.)	YES ☐ NO ☐
GRADUATION FROM ED TO SD BENEFICIARY When a supplier that we assisted with as an ED beneficiary then gets awarded a business and we start Transacting with.	YES ☐ NO ☐
ENTERPRISE DEVELOPMENT RECIPIENT A supplier that isn't in our value chain as yet but we have assisted them with an ED intervention	YES ☐ NO ☐

By signing below, I hereby verify that I am duly authorised to sign for and on behalf of firm / organisation and that all information contained herein and attached herewith are true and correct			
Name and Surname		Designation	
Signature		Date	

APPENDIX B

Affidavit or Solemn Declaration as to VAT registration status

Affidavit or Solemn Declaration

I, _____ solemnly swear/declare
that _____ is not a registered VAT
vendor and is not required to register as a VAT vendor because the combined value of taxable supplies
made by the provider in any 12 month period has not exceeded or is not expected to exceed R1million
threshold, as required in terms of the Value Added Tax Act.

Signature: _____

Designation: _____

Date: _____

Commissioner of Oaths

Thus signed and sworn to before me at _____ on this the _____
day of _____ 20_____,

the Deponent having knowledge that he/she knows and understands the contents of this Affidavit,
and that he/she has no objection to taking the prescribed oath, which he/she regards binding on
his/her conscience and that the allegations herein contained are all true and correct.

Commissioner of Oaths

VENDOR REGISTRATION DOCUMENTS CHECKLIST

Please note that you will have to provide the first two documents on the list (highlighted in red) and the rest will be provided by the supplier:

	Yes	No
1. Complete the "Supplier Declaration Form" (SDF) (commissioned). See attachment.		
2. Complete the "Supplier Code of Conduct" (SCC). See attachment.		
3. Copy of cancelled cheque OR letter from the bank verifying banking details (with bank stamp not older than 3 Months & sign by Bank Teller).		
4. Certified (Not Older than 3 Months) copy of Identity document of Shareholders/Directors/Members (where applicable).		
5. Certified copy of certificate of incorporation, CM29 / CM9 (name change).		
6. Certified copy of share Certificates of Shareholders, CK1 / CK2 (if CC).		
7. A letter with the company's letterhead confirming both Physical and Postal address.		
8. Original or certified copy of SARS Tax Clearance certificate and Vat registration certificate.		
9. BBBEE certificate and detailed scorecard from a SANAS Accredited Verification Agency and/or Sworn Certified Affidavit.		
10. Central Supplier Database (CSD) Summary Registration Report.		

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE - GENERAL

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner (**Select one**) of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	"Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

3. I hereby declare under Oath that:

- The Enterprise is _____% Black Owned using the flow-through principle as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%
- Based on the Audited Financial Statements/Financial Statements and other information available on the latest financial year-end of _____ (DD/MM/YYYY), the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	
At least 51% Black Owned	Level Two (125% B-BBEE procurement recognition level)	
Less than 51% Black Owned	Level Four (100% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.
5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date : _____

Commissioner of Oaths

Signature & stamp

Date:

**SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – SPECIALISED ENTITY ONLY –
GENERAL - which include (Not Limited to) Non-Profit Organisations, Non-Profit Companies,
Public Benefit Organisations etc.**

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Director of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (NPO, PBO etc.):	
Nature of Business:	
Definition of “Black People”	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 “Black People” is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;”
Definition of “Black Designated Groups”	“Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”

3. I hereby declare under Oath that:

- The Enterprise has _____% Black Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise has _____% Black Female Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise has _____% Black Designated Group Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Beneficiary % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%
- Based on the Audited Financial Statements/ Financial Statements and other information available on the latest financial year-end of _____ (DD/MM/YYYY), the annual Total Revenue/Allocated Budget/Gross Receipts was R10,000,000.00 (Ten Million Rands) or less
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

At Least 75% Black Beneficiaries	Level One (135% B-BBEE procurement recognition level)	
At Least 51% Black Beneficiaries	Level Two (125% B-BBEE procurement recognition level)	
Less than 51% Black Beneficiaries	Level Four (100% B-BBEE procurement recognition level)	

- 4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.
- 5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths

Signature & stamp

Date:

SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE - GENERAL

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner (**Select one**) of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	"Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

3. I hereby declare under Oath that:

- The Enterprise is _____% Black Owned using the flow-through principle as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%
- Based on the Audited Financial Statements/ Financial Statements and other information available on the latest financial year-end of _____ (DD/MM/YYYY), the annual Total Revenue was between R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands),
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% Black Owned	Level One (135% B-BBEE procurement recognition level)	
At Least 51% black owned	Level Two (125% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths

Signature & stamp

Date:

**SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE – SPECIALISED ENTITY -
GENERAL - which include (Not Limited to) Non-Profit Organisations, Non-Profit Companies,
Public Benefit Organisations etc.**

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Director of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name:	
Trading Name (If Applicable):	
Registration Number:	
Vat Number (If applicable)	
Enterprise Physical Address:	
Type of Entity (NPO, PBO etc.):	
Nature of Business:	
Definition of “Black People”	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 “Black People” is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;”
Definition of “Black Designated Groups”	“Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996; (c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”

3. I hereby declare under Oath that:

- The Enterprise has _____% Black Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise has _____% Black Female Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise has _____% Black Designated Group Beneficiaries as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Beneficiary % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%
- Based on the Audited Financial Statements/ Financial Statements and other information available on the latest financial year-end of _____(DD/MM/YYYY), the annual Total Revenue/Allocated Budget/Gross Receipts was between R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands)
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

At Least 75% Black Beneficiaries	Level One (135% B-BBEE procurement recognition level)	
At Least 51% Black Beneficiaries	Level Two (125% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____

Commissioner of Oaths

Signature & stamp

Date:

C1.1 Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUBSTATIONS

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

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

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 15% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

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

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Tenderer's CIDB registration number:

Acceptance

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

The terms of the contract, are contained in:

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

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

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

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

Notwithstanding anything contained herein, this agreement comes into effect on the date of award.

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

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Schedule of Deviations

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

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

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

For the tenderer:

For the Employer

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name &
signature
of witness

Date

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X2 Changes in the law
		X17 Low Service Damages
		X18 Limitation of Liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Term Service Contract (June 2005) (and amended June 2006 and April 2013)	
10.1	The <i>Employer</i> is:	Transnet SOC Ltd
	Address	Registered address: Transnet Corporate Centre 138 Eloff Street Braamfontein Johannesburg 2000
	Having elected its Contractual Address for the purposes of this contract as:	Transnet Freight Rail Transnet Park Building Robert Sobukwe Road Bellville
	Tel No.	021 940 1901 /084 764 1601
10.1	The <i>Service Manager</i> is (name):	Xolile Damba

Transnet Rail Infrastructure Manager

Contract Number: WRAC-BLQ-54954

Description of the Service: FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUB-STATIONS

	Address	Caledon West Street, Depot Engineers Building, Bellville
	Tel	083 781 7376
	e-mail	xolile.damba@transnet.net
11.2(2)	The Affected Property is	Muldersvlei, Huguenot, Soetendal, Gouda, Sandhills, Hugo, Quarry and Leeu-Gamka
11.2(13)	The <i>service</i> is	For the supply and installation of 132kV and 66kV primary bushings for 3kV DC Traction Transformers and Refurbishment of main and auxiliary Transformers
11.2(14)	The following matters will be included in the Risk Register	• Depot will be occupied and operational during execution of the service • High risk of oil spillage • Risk of electrocution and equipment damage
11.2(15)	The Service Information is in	The Scope of Services
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa subject to the jurisdiction of the Courts of South Africa.
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	2 weeks
2	The <i>Contractor's</i> main responsibilities	No additional data is required for this section of the <i>conditions of contract</i>
21.1	The <i>Contractor</i> submits a first plan for acceptance within	2 weeks of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	01 December 2025
30.1	The <i>service period</i> is	8 (Eight weeks)
4	Testing and defects	No additional data is required for this section of the <i>conditions of contract</i>.
5	Payment	
50.1	The <i>assessment interval</i> is	25th (twenty fifth) day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand.

Transnet Rail Infrastructure Manager

Contract Number: WRAC-BLQ-54954

Description of the Service: FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUB-STATIONS

51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.
51.4	The <i>interest rate</i> is	The prime lending rate of the Standard Bank South Africa.
6	Compensation events	No additional data is required for this section of the <i>conditions of contract</i>
7	Use of Equipment Plant and Materials	No additional data is required for this section of the <i>conditions of contract</i>.
8	Risks and insurance	
80.1	These are additional <i>Employers</i> risks	None
83.1	The minimum limit of indemnity for insurance in respect of loss and damage to property (except goods, plant and materials and equipment) and liability for bodily injury or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract for any one event is:	Whatever <i>Contractor</i> deems necessary as the <i>Employer</i> is not carrying this indemnity.
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common law liability for people falling outside the scope of the Act.
83.1	Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000	
83.1	The <i>Contractor</i> liability to the <i>Employer</i> for indirect or consequential loss including loss of profit, revenue and goodwill, is limited to:	The Total of the Prices.
83.1	For any one event, the <i>Contractor</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employers</i> property is limited to:	The Total of the Prices.

83.1	The <i>Contractor</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to:	The Total of the Prices.
9	Termination	There is no Contract Data required for this section of the <i>conditions of contract</i>.
10	Data for main Option clause	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	4 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is (Name)	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i>, the chairman of the Association of Arbitrators will appoint an <i>Adjudicator</i>.
W1.2(3)	The <i>Adjudicator nominating body</i> is: If no <i>Adjudicator nominating body</i> is entered, it is	The Association of Arbitrators (Southern Africa)
W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)
	The place where arbitration is to be held is	Cape Town
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or	
	- if the arbitration procedure does not state who selects an arbitrator, is	The Chairman of the Association of Arbitrators (Southern Africa)
12	Data for secondary Option clauses	
X2	Changes in the law	No additional data is required for this Option
X17	Low service damages	
X17.1		

Performance level	% achieved of performance against Tw	Low service damages
Completion of Works measured against the accepted program	99-100% performance achieved	R0 (nil)
	95 - 98% performance achieved	2,5% of the monthly fixed cost as per Price List
	90 – 94% performance achieved	5% of the monthly fixed cost as per Price List
	88-89% performance achieved	7,5% of the monthly fixed cost as per Price List
	86-87% performance achieved	10% of the monthly fixed cost as per Price List
	84-85% performance achieved	12,5% of the monthly fixed cost as per Price List
	<84% performance achieved	15% of the monthly fixed cost as per Price List

X18 Limitation of liability

X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	Nil
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	The deductible of the relevant insurance policy
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	The cost of correcting the defect.
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	Total of the Prices.
X18.5	The <i>end of liability date</i> is	Six months after the end of the <i>service period</i>.

Z Additional conditions of contract

Z.1 Obligations in respect of Termination

Z1.1		The following will be included under core clause 91.1:
		In the second main bullet, after the word 'partnership' add 'joint venture whether incorporated or otherwise (including any constituent of the joint venture)'; and
		Under the second main bullet, insert the following additional bullets after the last sub-bullet: - commenced business rescue proceedings (R22) - repudiated this Contract (R23)
Z1.2	Termination Table	The following will be included under core clause 90.2 Termination Table as follows: Amend "A reason other than R1 – R21" to "A reason other than R1 – R23"
Z1.3		Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."
Z2	Right Reserved by Transnet to Conduct Vetting through SSA	
		Transnet reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any Contractor who has access to National Key Points for the following without limitations: - Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state. - Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state. - Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.

Transnet Rail Infrastructure Manager

Contract Number: WRAC-BLQ-54954

Description of the Service: FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUB-STATIONS

Z3 Additional clause relating to Collusion in the Construction Industry

Z3.1	The contract award is made without prejudice to any rights Transnet may have to take appropriate action later with regard to any declared bid rigging including blacklisting.
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Z4 Protection of Personal Information Act

Z4.1	The <i>Employer</i> and the <i>Contractor</i> are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act
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C1.2 Contract Data

Part two - Data provided by the *Contractor*.

The tendering contractor is advised to read both the NEC3 Term Service Contract (June 2005) and the relevant parts of its Guidance Notes (TSC3-GN) in order to understand the implications of this Data which the tenderer is required to complete.

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	%%
11.2(14)	The following matters will be included in the Risk Register	T2.2-13
24.1	The key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	
CV's (and further key person's data including CVs) are in T2.2-05		

Transnet Rail Infrastructure Manager

Contract Number: WRAC-BLQ-54954

Description of the Service: FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUB – STATIONS

A	Priced contract with price list	
11.2(12)	The <i>price list</i> is in	C2.2
11.2(19)	The tendered total of the Prices is	R_____ excl. vat

PART C2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing instructions: Option A	2
C2.2	Price List	66

C2.1 Pricing instructions: Option A

1.1 The *conditions of contract*

1.2 How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Term Services Contract (TSC), June 2005 (with amendments June 2006 and April 2013) Option A states:

Identified 11
and defined
terms 11.2

(17) The Price for Services Provided to Date is the total of

- the Price for each lump sum item in the Price List which the *Contractor* has completed and
- where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.

(19) The Prices are the amounts stated in the Price column of the Price List, where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

1.3 Measurement and Payment

1.3.1 The Price List provides the basis of all valuations of the Price for Services Provided to Date, payments in multiple currencies and general progress monitoring.

1.3.2 The amount due at each assessment date is based on activities and/or milestones completed as indicated on the Price List.

1.3.3 The Price List work breakdown structure provided by the *Contractor* is based on the activity/milestone provided by the Employer. The activities listed by the *Employer* are the minimum activities acceptable and identify the specific activities which are required to achieve Completion. **The Price List work breakdown structure is compiled to the satisfaction of the Employer with any additions and/or amendments deemed necessary.**

1.3.4 The *Contractor's* detailed Price List summates back to the activity/milestone provided by the *Employer* and is sufficient detail to monitor completion of activities related to the operations on the Accepted Plan in order that payment of completed activities may be assessed.

1.3.5 The Prices are obtained from the Price List. The Prices includes for all direct and indirect costs, overheads, profits, risks, liabilities, obligations, etc. relative to the contract.

C2.2 Price List

Item no.	Description	Unit	Qty	Rate	Price
1.	Muldersvlei Main Transformer- Unit A				
1.1	P & G costs				
1.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
1.2	RISK AND SAFETY				
1.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
1.3	Drain oil to prepare for transformer refurbishment	sum	1		
1.4	Replace top cover gasket	sum	1		
1.5	Re-gasket primary and secondary Bushings	sum	1		
1.6	Re-gasket Tap-switch	sum	1		
1.7	Re-gasket inspection covers	sum	1		
1.8	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
1.9	Replace drain cocks	sum	1		
1.10	Replace sampling cocks	sum	1		
1.11	Replace the gasket of the core earth insulator	sum	1		
1.12	Replace Radiator Drain plugs	sum	1		
1.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
1.14	Treat oil contaminated crusher stones	sum	1		
1.15	Treat oil contaminated plinth	sum	1		
1.16	Treat rust (exterior transformer, conservator tank).	sum	1		
1.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
1.18	Top up transformer with oil	L	630		
1.19	Purify oil.	L	9000		
1.20	Testing of oil before and after refurbishment	sum	1		
1.21	Clean, treat and paint transformer and fins.	sum	1		
1.22	Replace sight glass	sum	1		
1.23	Replace gasket conservator tank	sum	1		
1.24	Replace silica gel breather	ea	1		
1.25	Supply and put in new silica gel	sum	1		
1.26	Supply and install new oil and winding temperature gauges	sum	1		
1.27	Replace gasket buchholz relay	sum	1		
1.28	Replace gasket breather	sum	1		
1.29	Replace gasket pipe from Buchholz to the main	sum	1		
1.30	Testing and commissioning	sum	1		
Total for Muldersvlei Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
2.	Muldersvlei Main Transformer- Unit B				
2.1	P & G costs				
2.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
2.2	RISK AND SAFETY				
2.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i>	sum	1		
2.3	Drain oil to prepare for transformer refurbishment	sum	1		
2.4	Replace top cover gasket	sum	1		
2.5	Re-gasket primary and secondary Bushings	sum	1		
2.6	Re-gasket Tap-switch	sum	1		
2.7	Re-gasket inspection covers	sum	1		
2.8	Replace stop cocks	sum	1		
2.9	Replace drain cocks	sum	1		
2.10	Replace sampling cocks	sum	1		
2.11	Replace the gasket of the core earth insulator bushing	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
2.12	Replace Radiator Drain plugs	sum	1		
2.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
2.14	Treat oil contaminated crusher stones	sum	1		
2.15	Treat oil contaminated plinth	sum	1		
2.16	Treat rust (exterior transformer, conservator tank).	sum	1		
2.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
2.18	Top up transformer with oil	L	630		
2.19	Purify oil.	L	9000		
2.20	Testing of oil before and after refurbishment	sum	1		
2.21	Clean, treat and paint transformer and fins.	sum	1		
2.22	Replace sight glass	sum	1		
2.23	Replace gasket conservator tank	sum	1		
2.24	Replace silica gel breather	ea	1		
2.25	Supply and put in new silica gel	sum	1		
2.26	Supply and install new oil and winding temperature gauges	sum	1		
2.27	Replace gasket buchholz relay	sum	1		
2.28	Replace gasket breather	sum	1		
2.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
2.30	Testing and commissioning	sum	1		
Total for Muldersvlei Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
3.	Muldersvlei Auxiliary Transformer- Unit A				
3.1	P & G costs				
3.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
3.2	RISK AND SAFETY				
3.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
3.3	Drain oil to prepare for transformer refurbishment	sum	1		
3.4	Replace top cover gasket	sum	1		
3.5	Re-gasket primary and secondary Bushings	sum	1		
3.8	Re-gasket inspection covers	sum	1		
3.9	Replace stop cocks	sum	1		
3.10	Replace drain cocks	sum	1		
3.11	Replace sampling cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
3.12	Replace the gasket of the core earth insulator	sum	1		
3.13	Replace Radiator Drain plugs	sum	1		
3.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
3.15	Treat oil contaminated crusher stones	sum	1		
3.16	Treat oil contaminated plinth	sum	1		
3.17	Treat rust (exterior transformer, conservator tank).	sum	1		
3.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
3.19	Top up transformer with oil	L	105		
3.20	Purify oil.	L	200		
3.21	Testing of oil before and after refurbishment	sum	1		
3.22	Clean, treat and paint transformer and fins.	sum	1		
3.23	Replace sight glass	sum	1		
3.24	Replace gasket conservator tank	sum	1		
3.25	Replace silica gel breather	ea	1		
3.26	Supply and put in new silica gel	sum	1		
3.27	Replace gasket on Buchholz relay	sum	1		
3.28	Replace gasket breather	sum	1		
3.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
3.30	Testing and commissioning	sum	1		
Total for Muldersvlei Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
4.	Muldersvlei Auxiliary Transformer- Unit B				
4.1	P & G costs				
4.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
4.2	RISK AND SAFETY				
4.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i>	sum	1		
4.3	Drain oil to prepare for transformer refurbishment	sum	1		
4.4	Replace top cover gasket	sum	1		
4.5	Re-gasket primary and secondary Bushings	sum	1		
4.8	Re-gasket inspection covers	sum	1		
4.9	Replace stop cocks	sum	1		
4.10	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
4.11	Replace sampling cocks	sum	1		
4.12	Replace the gasket of the core earth insulator bushing	sum	1		
4.13	Replace Radiator Drain plugs	sum	1		
4.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
4.15	Treat oil contaminated crusher stones	sum	1		
4.16	Treat oil contaminated plinth	sum	1		
4.17	Treat rust (exterior transformer, conservator tank).	sum	1		
4.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
4.19	Top up transformer with oil	L	105		
4.20	Purify oil.	L	200		
4.21	Testing of oil before and after refurbishment	sum	1		
4.22	Clean, treat and paint transformer and fins.	sum	1		
4.23	Replace sight glass	sum	1		
4.24	Replace gasket conservator tank	sum	1		
4.25	Replace silica gel breather	ea	1		
4.26	Supply and put in new silica gel	sum	1		
4.27	Replace gasket on Buchholz relay	sum	1		
4.28	Replace gasket breather	sum	1		
4.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
4.30	Testing and commissioning	sum	1		
Total for Muldersvlei Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
5.	Huguenot Main Transformer- Unit A				
5.1	P & G costs				
5.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
5.2	RISK AND SAFETY				
5.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
5.3	Drain oil to prepare for transformer refurbishment	sum	1		
5.4	Replace top cover gasket	sum	1		
5.5	Re-gasket primary and secondary Bushings	sum	1		
5.6	Re-gasket Tap-switch	sum	1		
5.7	Re-gasket inspection covers	sum	1		
5.8	Replace stop cocks	sum	1		
5.9	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
5.10	Replace sampling cocks	sum	1		
5.11	Replace the gasket of the core earth insulator bushing	sum	1		
5.12	Replace Radiator Drain plugs	sum	1		
5.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
5.14	Treat oil contaminated crusher stones	sum	1		
5.15	Treat oil contaminated plinth	sum	1		
5.16	Treat rust (exterior transformer, conservator tank).	sum	1		
5.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
5.18	Top up transformer with oil	L	630		
5.19	Purify oil.	L	9000		
5.20	Testing of oil before and after refurbishment	sum	1		
5.21	Clean, treat and paint transformer and fins.	sum	1		
5.22	Replace sight glass	sum	1		
5.23	Replace gasket conservator tank	sum	1		
5.24	Replace silica gel breather	ea	1		
5.25	Supply and put in new silica gel	sum	1		
5.26	Supply and install new oil and winding temperature gauges	sum	1		
5.27	Replace gasket on Buchholz relay	sum	1		
5.28	Replace gasket breather	sum	1		
5.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
5.30	Testing and commissioning	sum	1		
Total for Huguenot Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
6.	Huguenot Main Transformer- Unit B				
6.1	P & G costs				
6.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
6.2	RISK AND SAFETY				
6.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
6.3	Drain oil to prepare for transformer refurbishment	sum	1		
6.4	Replace top cover gasket	sum	1		
6.5	Re-gasket primary and secondary Bushings	sum	1		
6.6	Re-gasket Tap-switch	sum	1		
6.7	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
6.8	Replace stop cocks	sum	1		
6.9	Replace drain cocks	sum	1		
6.10	Replace sampling cocks	sum	1		
6.11	Replace the gasket of the core earth insulator	sum	1		
6.12	Replace Radiator Drain plugs	sum	1		
6.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
6.14	Treat oil contaminated crusher stones	sum	1		
6.15	Treat oil contaminated plinth	sum	1		
6.16	Treat rust (exterior transformer, conservator tank).	sum	1		
6.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
6.18	Top up transformer with oil	L	630		
6.19	Purify oil.	L	9000		
6.20	Testing of oil before and after refurbishment	sum	1		
6.21	Clean, treat and paint transformer and fins.	sum	1		
6.22	Replace sight glass	sum	1		
6.23	Replace gasket conservator tank	sum	1		
6.24	Replace silica gel breather	ea	1		
6.25	Supply and put in new silica gel	sum	1		
6.26	Supply and install new oil and winding temperature gauges	sum	1		
6.27	Replace gasket on Buchholz relay	sum	1		
6.28	Replace gasket breather	sum	1		
6.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
6.30	Testing and commissioning	sum	1		
Total for Huguenot Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
7.	Huguenot substation Auxiliary Transformer- Unit B				
7.1	P & G costs				
7.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
7.2	RISK AND SAFETY				
7.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
7.3	Drain oil to prepare for transformer refurbishment	sum	1		
7.4	Replace top cover gasket	sum	1		
7.5	Re-gasket primary and secondary Bushings	sum	1		
7.8	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
7.9	Replace stop cocks	sum	1		
7.10	Replace drain cocks	sum	1		
7.11	Replace sampling cocks	sum	1		
7.12	Replace the gasket of the core earth insulator	sum	1		
7.13	Replace Radiator Drain plugs	sum	1		
7.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
7.15	Treat oil contaminated crusher stones	sum	1		
7.16	Treat oil contaminated plinth	sum	1		
7.17	Treat rust (exterior transformer, conservator tank).	sum	1		
7.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
7.19	Top up transformer with oil	L	105		
7.20	Purify oil.	L	200		
7.21	Testing of oil before and after refurbishment	sum	1		
7.22	Clean, treat and paint transformer and fins.	sum	1		
7.23	Replace sight glass	sum	1		
7.24	Replace gasket conservator tank	sum	1		
7.25	Replace silica gel breather	ea	1		
7.26	Supply and put in new silica gel	sum	1		
7.27	Replace gasket on Buchholz relay	sum	1		
7.28	Replace gasket breather	sum	1		
7.29	Replace gasket pipe from Buchholz to the main	sum	1		
7.30	Testing and commissioning	sum	1		
Total for Huguenot Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
8.	Soetendal Main Transformer- Unit A				
8.1	P & G costs				
8.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
8.2	RISK AND SAFETY				
8.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
8.3	Drain oil to prepare for transformer refurbishment	sum	1		
8.4	Replace top cover gasket	sum	1		
8.5	Re-gasket primary and secondary Bushings	sum	1		
8.6	Re-gasket Tap-switch	sum	1		
8.7	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
8.8	Replace stop cocks	sum	1		
8.9	Replace drain cocks	sum	1		
8.10	Replace sampling cocks	sum	1		
8.11	Replace the gasket of the core earth insulator	sum	1		
8.12	Replace Radiator Drain plugs	sum	1		
8.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
8.14	Treat oil contaminated crusher stones	sum	1		
8.15	Treat oil contaminated plinth	sum	1		
8.16	Treat rust (exterior transformer, conservator tank).	sum	1		
8.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
8.18	Top up transformer with oil	L	630		
8.19	Purify oil.	L	9000		
8.20	Testing of oil before and after refurbishment	sum	1		
8.21	Clean, treat and paint transformer and fins.	sum	1		
8.22	Replace sight glass	sum	1		
8.23	Replace gasket conservator tank	sum	1		
8.24	Replace silica gel breather	ea	1		
8.25	Supply and put in new silica gel	sum	1		
8.26	Supply and install new oil and winding temperature gauges	sum	1		
8.27	Replace gasket on Buchholz relay	sum	1		
8.28	Replace gasket breather	sum	1		
8.29	Replace gasket pipe from Buchholz to the main	sum	1		
8.30	Testing and commissioning	sum	1		
Total for Soetendal Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
9.	Soetendal Main Transformer- Unit B				
9.1	P & G costs				
9.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
9.2	RISK AND SAFETY				
9.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
9.3	Drain oil to prepare for transformer refurbishment	sum	1		
9.4	Replace top cover gasket	sum	1		
9.5	Re-gasket primary and secondary Bushings	sum	1		
9.6	Re-gasket Tap-switch	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
9.7	Re-gasket inspection covers	sum	1		
9.8	Replace stop cocks	sum	1		
9.9	Replace drain cocks	sum	1		
9.10	Replace sampling cocks	sum	1		
9.11	Replace the gasket of the core earth insulator	sum	1		
9.12	Replace Radiator Drain plugs	sum	1		
9.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
9.14	Treat oil contaminated crusher stones	sum	1		
9.15	Treat oil contaminated plinth	sum	1		
9.16	Treat rust (exterior transformer, conservator tank).	sum	1		
9.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
9.18	Top up transformer with oil	L	630		
9.19	Purify oil.	L	9000		
9.20	Testing of oil before and after refurbishment	sum	1		
9.21	Clean, treat and paint transformer and fins.	sum	1		
9.22	Replace sight glass	sum	1		
9.23	Replace gasket conservator tank	sum	1		
9.24	Replace silica gel breather	ea	1		
9.25	Supply and put in new silica gel	sum	1		
9.26	Supply and install new oil and winding temperature gauges	sum	1		
9.27	Replace gasket on Buchholz relay	sum	1		
9.28	Replace gasket breather	sum	1		
9.29	Replace gasket pipe from Buchholz to the main	sum	1		
9.30	Testing and commissioning	sum	1		
Total for Soetendal Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
10.	Soetendal substation Auxiliary Transformer- Unit A				
10.1	P & G costs				
10.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
10.2	RISK AND SAFETY				
10.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
10.3	Drain oil to prepare for transformer refurbishment	sum	1		
10.4	Replace top cover gasket	sum	1		
10.5	Re-gasket primary and secondary Bushings	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
10.8	Re-gasket inspection covers	sum	1		
10.9	Replace stop cocks	sum	1		
10.10	Replace drain cocks	sum	1		
10.11	Replace sampling cocks	sum	1		
10.12	Replace the gasket of the core earth insulator	sum	1		
10.13	Replace Radiator Drain plugs	sum	1		
10.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
10.15	Treat oil contaminated crusher stones	sum	1		
10.16	Treat oil contaminated plinth	sum	1		
10.17	Treat rust (exterior transformer, conservator tank)	sum	1		
10.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
10.19	Top up transformer with oil	L	105		
10.20	Purify oil.	L	200		
10.21	Testing of oil before and after refurbishment	sum	1		
10.22	Clean, treat and paint transformer and fins.	sum	1		
10.23	Replace sight glass	sum	1		
10.24	Replace gasket conservator tank	sum	1		
10.25	Replace silica gel breather	ea	1		
10.26	Supply and put in new silica gel	sum	1		
10.27	Replace gasket on Buchholz relay	sum	1		
10.28	Replace gasket breather	sum	1		
10.29	Replace gasket pipe from Buchholz to the main	sum	1		
10.30	Testing and commissioning	sum	1		
Total for Soetendal Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
11.	Soetendal substation Auxiliary Transformer- Unit B				
11.1	P & G costs				
11.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
11.2	RISK AND SAFETY				
11.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
11.3	Drain oil to prepare for transformer refurbishment	sum	1		
11.4	Replace top cover gasket	sum	1		
11.5	Re-gasket primary and secondary Bushings	sum	1		
11.8	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
11.9	Replace stop cocks	sum	1		
11.10	Replace drain cocks	sum	1		
11.11	Replace sampling cocks	sum	1		
11.12	Replace the gasket of the core earth insulator	sum	1		
11.13	Replace Radiator Drain plugs	sum	1		
11.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
11.15	Treat oil contaminated crusher stones	sum	1		
11.16	Treat oil contaminated plinth	sum	1		
11.17	Treat rust (exterior transformer, conservator tank).	sum	1		
11.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
11.19	Top up transformer with oil	L	105		
11.20	Purify oil.	L	200		
11.21	Testing of oil before and after refurbishment	sum	1		
11.22	Clean, treat and paint transformer and fins.	sum	1		
11.23	Replace sight glass	sum	1		
11.24	Replace gasket conservator tank	sum	1		
11.25	Replace silica gel breather	ea	1		
11.26	Supply and put in new silica gel	sum	1		
11.27	Replace gasket on Buchholz relay	sum	1		
11.28	Replace gasket breather	sum	1		
11.29	Replace gasket pipe from Buchholz to the main	sum	1		
11.30	Testing and commissioning	sum	1		
Total for Soetendal Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
12.	Gouda Main Transformer- Unit A				
12.1	P & G costs				
12.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
12.2	RISK AND SAFETY				
12.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i>.	sum	1		
12.3	Drain oil to prepare for transformer refurbishment	sum	1		
12.4	Replace top cover gasket	sum	1		
12.5	Re-gasket primary and secondary Bushings	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
12.6	Re-gasket Tap-switch	sum	1		
12.7	Re-gasket inspection covers	sum	1		
12.8	Replace stop cocks	sum	1		
12.9	Replace drain cocks	sum	1		
12.10	Replace sampling cocks	sum	1		
12.11	Replace the gasket of the core earth insulator	sum	1		
12.12	Replace Radiator Drain plugs	sum	1		
12.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
12.14	Treat oil contaminated crusher stones	sum	1		
12.15	Treat oil contaminated plinth	sum	1		
12.16	Treat rust (exterior transformer, conservator tank).	sum	1		
12.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
12.18	Top up transformer with oil	L	630		
12.19	Purify oil.	L	9000		
12.20	Testing of oil before and after refurbishment	sum	1		
12.21	Clean, treat and paint transformer and fins.	sum	1		
12.22	Replace sight glass	sum	1		
12.23	Replace gasket conservator tank	sum	1		
12.24	Replace silica gel breather	ea	1		
12.25	Supply and put in new silica gel	sum	1		
12.26	Supply and install new oil and winding temperature gauges	sum	1		
12.27	Replace gasket on Buchholz relay	sum	1		
12.28	Replace gasket breather	sum	1		
12.29	Replace gasket pipe from Buchholz to the main	sum	1		
12.30	Testing and commissioning	sum	1		
Total for Gouda Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
13.	Gouda Main Transformer- Unit B				
13.1	P & G costs				
13.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
13.2	RISK AND SAFETY				
13.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
13.3	Drain oil to prepare for transformer refurbishment	sum	1		
13.4	Replace top cover gasket	sum	1		
13.5	Re-gasket primary and secondary Bushings	sum	1		
13.6	Re-gasket Tap-switch	sum	1		
13.7	Re-gasket inspection covers	sum	1		
13.8	Replace stop cocks	sum	1		
13.9	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
13.10	Replace sampling cocks	sum	1		
13.11	Replace the gasket of the core earth insulator	sum	1		
13.12	Replace Radiator Drain plugs	sum	1		
13.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
13.14	Treat oil contaminated crusher stones	sum	1		
13.15	Treat oil contaminated plinth	sum	1		
13.16	Treat rust (exterior transformer, conservator tank).	sum	1		
13.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
13.18	Top up transformer with oil	L	630		
13.19	Purify oil.	L	9000		
13.20	Testing of oil before and after refurbishment	sum	1		
13.21	Clean, treat and paint transformer and fins.	sum	1		
13.22	Replace sight glass	sum	1		
13.23	Replace gasket conservator tank	sum	1		
13.24	Replace silica gel breather	ea	1		
13.25	Supply and put in new silica gel	sum	1		
13.26	Supply and install new oil and winding temperature gauges	sum	1		
13.27	Replace gasket on Buchholz relay	sum	1		
13.28	Replace gasket breather	sum	1		
13.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
13.30	Testing and commissioning	sum	1		
Total for Gouda Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
14.	Gouda substation Auxiliary Transformer- Unit A				
14.1	P & G costs				
14.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
14.2	RISK AND SAFETY				
14.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
14.3	Drain oil to prepare for transformer refurbishment	sum	1		
14.4	Replace top cover gasket	sum	1		
14.5	Re-gasket primary and secondary Bushings	sum	1		
14.8	Re-gasket inspection covers	sum	1		
14.9	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
14.10	Replace drain cocks	sum	1		
14.11	Replace sampling cocks	sum	1		
14.12	Replace the gasket of the core earth insulator	sum	1		
14.13	Replace Radiator Drain plugs	sum	1		
14.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
14.15	Treat oil contaminated crusher stones	sum	1		
14.16	Treat oil contaminated plinth	sum	1		
14.17	Treat rust (exterior transformer, conservator tank).	sum	1		
14.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
14.19	Top up transformer with oil	L	105		
14.20	Purify oil.	L	200		
14.21	Testing of oil before and after refurbishment	sum	1		
14.22	Clean, treat and paint transformer and fins.	sum	1		
14.23	Replace sight glass	sum	1		
14.24	Replace gasket conservator tank	sum	1		
14.25	Replace silica gel breather	ea	1		
14.26	Supply and put in new silica gel	sum	1		
14.27	Replace gasket on Buchholz relay	sum	1		
14.28	Replace gasket breather	sum	1		
14.29	Replace gasket pipe from Buchholz to the main	sum	1		
14.30	Testing and commissioning	sum	1		
Total for Gouda Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
15.	Gouda substation Auxiliary Transformer- Unit B				
15.1	P & G costs				
15.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
15.2	RISK AND SAFETY				
15.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
15.3	Drain oil to prepare for transformer refurbishment	sum	1		
15.4	Replace top cover gasket	sum	1		
15.5	Re-gasket primary and secondary Bushings	sum	1		
15.8	Re-gasket inspection covers	sum	1		
15.9	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
15.10	Replace drain cocks	sum	1		
15.11	Replace sampling cocks	sum	1		
15.12	Replace the gasket of the core earth insulator	sum	1		
15.13	Replace Radiator Drain plugs	sum	1		
15.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
15.15	Treat oil contaminated crusher stones	sum	1		
15.16	Treat oil contaminated plinth	sum	1		
15.17	Treat rust (exterior transformer, conservator tank).	sum	1		
15.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
15.19	Top up transformer with oil	L	105		
15.20	Purify oil.	L	200		
15.21	Testing of oil before and after refurbishment	sum	1		
15.22	Clean, treat and paint transformer and fins.	sum	1		
15.23	Replace sight glass	sum	1		
15.24	Replace gasket conservator tank	sum	1		
15.25	Replace silica gel breather	ea	1		
15.26	Supply and put in new silica gel	sum	1		
15.27	Replace gasket on Buchholz relay	sum	1		
15.28	Replace gasket breather	sum	1		
15.29	Replace gasket pipe from Buchholz to the main	sum	1		
15.30	Testing and commissioning	sum	1		
Total for Gouda Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
16.	Sandhills Main Transformer- Unit A				
16.1	P & G costs				
16.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
16.2	RISK AND SAFETY				
16.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
16.3	Drain oil to prepare for transformer refurbishment	sum	1		
16.4	Replace top cover gasket	sum	1		
16.5	Re-gasket primary and secondary Bushings	sum	1		
16.6	Re-gasket Tap-switch	sum	1		
16.7	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
16.8	Replace stop cocks	sum	1		
16.9	Replace drain cocks	sum	1		
16.10	Replace sampling cocks	sum	1		
16.11	Replace the gasket of the core earth insulator	sum	1		
16.12	Replace Radiator Drain plugs	sum	1		
16.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
16.14	Treat oil contaminated crusher stones	sum	1		
16.15	Treat oil contaminated plinth	sum	1		
16.16	Treat rust (exterior transformer, conservator tank).	sum	1		
16.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
16.18	Top up transformer with oil	L	630		
16.19	Purify oil.	L	9000		
16.20	Testing of oil before and after refurbishment	sum	1		
16.21	Clean, treat and paint transformer and fins.	sum	1		
16.22	Replace sight glass	sum	1		
16.23	Replace gasket conservator tank	sum	1		
16.24	Replace silica gel breather	ea	1		
16.25	Supply and put in new silica gel	sum	1		
16.26	Supply and install new oil and winding temperature gauges	sum	1		
16.27	Replace gasket on Buchholz relay	sum	1		
16.28	Replace gasket breather	sum	1		
16.29	Replace gasket pipe from Buchholz to the main	sum	1		
16.30	Testing and commissioning	sum	1		
Total for Sandhills Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
17.	Sandhills Main Transformer- Unit B				
17.1	P & G costs				
17.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
17.2	RISK AND SAFETY				
17.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i>	sum	1		
17.3	Drain oil to prepare for transformer refurbishment	sum	1		
17.4	Replace top cover gasket	sum	1		
17.5	Re-gasket primary and secondary Bushings	sum	1		
17.6	Re-gasket Tap-switch	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
17.7	Re-gasket inspection covers	sum	1		
17.8	Replace stop cocks	sum	1		
17.9	Replace drain cocks	sum	1		
17.10	Replace sampling cocks	sum	1		
17.11	Replace the gasket of the core earth insulator	sum	1		
17.12	Replace Radiator Drain plugs	sum	1		
17.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
17.14	Treat oil contaminated crusher stones	sum	1		
17.15	Treat oil contaminated plinth	sum	1		
17.16	Treat rust (exterior transformer, conservator tank).	sum	1		
17.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
17.18	Top up transformer with oil	L	630		
17.19	Purify oil.	L	9000		
17.20	Testing of oil before and after refurbishment	sum	1		
17.21	Clean, treat and paint transformer and fins.	sum	1		
17.22	Replace sight glass	sum	1		
17.23	Replace gasket conservator tank	sum	1		
17.24	Replace silica gel breather	ea	1		
17.25	Supply and put in new silica gel	sum	1		
17.26	Supply and install new oil and winding temperature gauges	sum	1		
17.27	Replace gasket on Buchholz relay	sum	1		
17.28	Replace gasket breather	sum	1		
17.29	Replace gasket pipe from Buchholz to the main	sum	1		
17.30	Testing and commissioning	sum	1		
Total for Sandhills Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
18.	Sandhills substation Auxiliary Transformer- Unit A				
18.1	P & G costs				
18.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
18.2	RISK AND SAFETY				
18.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
18.3	Drain oil to prepare for transformer refurbishment	sum	1		
18.4	Replace top cover gasket	sum	1		
18.5	Re-gasket primary and secondary Bushings	sum	1		
18.8	Re-gasket inspection covers	sum	1		
18.9	Replace stop cocks	sum	1		
18.10	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
18.11	Replace sampling cocks	sum	1		
18.12	Replace the gasket of the core earth insulator	sum	1		
18.13	Replace Radiator Drain plugs	sum	1		
18.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
18.15	Treat oil contaminated crusher stones	sum	1		
18.16	Treat oil contaminated plinth	sum	1		
18.17	Treat rust (exterior transformer, conservator tank).	sum	1		
18.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
18.19	Top up transformer with oil	L	105		
18.20	Purify oil.	L	200		
18.21	Testing of oil before and after refurbishment	sum	1		
18.22	Clean, treat and paint transformer and fins.	sum	1		
18.23	Replace sight glass	sum	1		
18.24	Replace gasket conservator tank	sum	1		
18.25	Replace silica gel breather	ea	1		
18.26	Supply and put in new silica gel	sum	1		
18.27	Replace gasket on Buchholz relay	sum	1		
18.28	Replace gasket breather	sum	1		
18.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
18.30	Testing and commissioning	sum	1		
Total for Sandhills Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
19.	Sandhills substation Auxiliary Transformer- Unit B				
19.1	P & G costs				
19.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
19.2	RISK AND SAFETY				
19.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
19.3	Drain oil to prepare for transformer refurbishment	sum	1		
19.4	Replace top cover gasket	sum	1		
19.5	Re-gasket primary and secondary Bushings	sum	1		
19.8	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
19.9	Replace stop cocks	sum	1		
19.10	Replace drain cocks	sum	1		
19.11	Replace sampling cocks	sum	1		
19.12	Replace the gasket of the core earth insulator	sum	1		
19.13	Replace Radiator Drain plugs	sum	1		
19.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
19.15	Treat oil contaminated crusher stones	sum	1		
19.16	Treat oil contaminated plinth	sum	1		
19.17	Treat rust (exterior transformer, conservator tank).	sum	1		
19.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
19.19	Top up transformer with oil	L	105		
19.20	Purify oil.	L	200		
19.21	Testing of oil before and after refurbishment	sum	1		
19.22	Clean, treat and paint transformer and fins.	sum	1		
19.23	Replace sight glass	sum	1		
19.24	Replace gasket conservator tank	sum	1		
19.25	Replace silica gel breather	ea	1		
19.26	Supply and put in new silica gel	sum	1		
19.27	Replace gasket on Buchholz relay	sum	1		
19.28	Replace gasket breather	sum	1		
19.29	Replace gasket pipe from Buchholz to the main	sum	1		
19.30	Testing and commissioning	sum	1		
Total for Sandhills Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
20.	Hugo Main Transformer- Unit A				
20.1	P & G costs				
20.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
20.2	RISK AND SAFETY				
20.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
20.3	Drain oil to prepare for transformer refurbishment	sum	1		
20.4	Replace top cover gasket	sum	1		
20.5	Re-gasket primary and secondary Bushings	sum	1		
20.6	Re-gasket Tap-switch	sum	1		
20.7	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
20.8	Replace stop cocks	sum	1		
20.9	Replace drain cocks	sum	1		
20.10	Replace sampling cocks	sum	1		
20.11	Replace the gasket of the core earth insulator	sum	1		
20.12	Replace Radiator Drain plugs	sum	1		
20.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
20.14	Treat oil contaminated crusher stones	sum	1		
20.15	Treat oil contaminated plinth	sum	1		
20.16	Treat rust (exterior transformer, conservator tank).	sum	1		
20.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
20.18	Top up transformer with oil	L	630		
20.19	Purify oil.	L	9000		
20.20	Testing of oil before and after refurbishment	sum	1		
20.21	Clean, treat and paint transformer and fins.	sum	1		
20.22	Replace sight glass	sum	1		
20.23	Replace gasket conservator tank	sum	1		
20.24	Replace silica gel breather	ea	1		
20.25	Supply and put in new silica gel	sum	1		
20.26	Supply and install new oil and winding temperature gauges	sum	1		
20.27	Replace gasket on Buchholz relay	sum	1		
20.28	Replace gasket breather	sum	1		
20.29	Replace gasket pipe from Buchholz to the main	sum	1		
20.30	Supply, deliver and Install 132kV main transformer Primary Bushings	ea	3		
20.31	Testing and commissioning	sum	1		
Total for Hugo Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
21.	Hugo Main Transformer- Unit B				
21.1	P & G costs				
21.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
21.2	RISK AND SAFETY				
21.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
21.3	Drain oil to prepare for transformer refurbishment	sum	1		
21.4	Replace top cover gasket	sum	1		
21.5	Re-gasket primary and secondary Bushings	sum	1		
21.6	Re-gasket Tap-switch	sum	1		
21.7	Re-gasket inspection covers	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
21.8	Replace stop cocks	sum	1		
21.9	Replace drain cocks	sum	1		
21.10	Replace sampling cocks	sum	1		
21.11	Replace the gasket of the core earth insulator	sum	1		
21.12	Replace Radiator Drain plugs	sum	1		
21.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
21.14	Treat oil contaminated crusher stones	sum	1		
21.15	Treat oil contaminated plinth	sum	1		
21.16	Treat rust (exterior transformer, conservator tank).	sum	1		
21.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
21.18	Top up transformer with oil	L	630		
21.19	Purify oil.	L	9000		
21.20	Testing of oil before and after refurbishment	sum	1		
21.21	Clean, treat and paint transformer and fins.	sum	1		
21.22	Replace sight glass	sum	1		
21.23	Replace gasket conservator tank	sum	1		
21.24	Replace silica gel breather	ea	1		
21.25	Supply and put in new silica gel	sum	1		
21.26	Supply and install new oil and winding temperature gauges	sum	1		
21.27	Replace gasket on Buchholz relay	sum	1		
21.28	Replace gasket breather	sum	1		
21.29	Replace gasket pipe from Buchholz to the main	sum	1		
21.30	Supply, deliver and Install 132kV main transformer Primary Bushings	ea	3		
21.31	Testing and commissioning	sum	1		
Total for Hugo Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
22.	Hugo substation Auxiliary Transformer- Unit A				
22.1	P & G costs				
22.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
22.2	RISK AND SAFETY				
22.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
22.3	Drain oil to prepare for transformer refurbishment	sum	1		
22.4	Replace top cover gasket	sum	1		
22.5	Re-gasket primary and secondary Bushings	sum	1		
22.8	Re-gasket inspection covers	sum	1		
22.9	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
22.10	Replace drain cocks	sum	1		
22.11	Replace sampling cocks	sum	1		
22.12	Replace the gasket of the core earth insulator	sum	1		
22.13	Replace Radiator Drain plugs	sum	1		
22.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
22.15	Treat oil contaminated crusher stones	sum	1		
22.16	Treat oil contaminated plinth	sum	1		
22.17	Treat rust (exterior transformer, conservator tank).	sum	1		
22.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
22.19	Top up transformer with oil	L	105		
22.20	Purify oil.	L	200		
22.21	Testing of oil before and after refurbishment	sum	1		
22.22	Clean, treat and paint transformer and fins.	sum	1		
22.23	Replace sight glass	sum	1		
22.24	Replace gasket conservator tank	sum	1		
22.25	Replace silica gel breather	ea	1		
22.26	Supply and put in new silica gel	sum	1		
22.27	Replace gasket on Buchholz relay	sum	1		
22.28	Replace gasket breather	sum	1		
22.29	Replace gasket pipe from Buchholz to the main	sum	1		
22.30	Testing and commissioning	sum	1		
Total for Hugo Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
23	Hugo substation Auxiliary Transformer- Unit B				
23.1	P & G costs				
23.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
23.2	RISK AND SAFETY				
23.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
23.3	Drain oil to prepare for transformer refurbishment	sum	1		
23.4	Replace top cover gasket	sum	1		
23.5	Re-gasket primary and secondary Bushings	sum	1		
23.8	Re-gasket inspection covers	sum	1		
23.9	Replace stop cocks	sum	1		
23.10	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
23.11	Replace sampling cocks	sum	1		
23.12	Replace the gasket of the core earth insulator	sum	1		
23.13	Replace Radiator Drain plugs	sum	1		
23.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
23.15	Treat oil contaminated crusher stones	sum	1		
23.16	Treat oil contaminated plinth	sum	1		
23.17	Treat rust (exterior transformer, conservator tank).	sum	1		
23.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
23.19	Top up transformer with oil	L	105		
23.20	Purify oil.	L	200		
23.21	Testing of oil before and after refurbishment	sum	1		
23.22	Clean, treat and paint transformer and fins.	sum	1		
23.23	Replace sight glass	sum	1		
23.24	Replace gasket conservator tank	sum	1		
23.25	Replace silica gel breather	ea	1		
23.26	Supply and put in new silica gel	sum	1		
23.27	Replace gasket on Buchholz relay	sum	1		
23.28	Replace gasket breather	sum	1		
23.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
23.30	Testing and commissioning	sum	1		
Total for Hugo Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
24.	Quarry Main Transformer- Unit A				
24.1	P & G costs				
24.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
24.2	RISK AND SAFETY				
24.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> ..	sum	1		
24.3	Drain oil to prepare for transformer refurbishment	sum	1		
24.4	Replace top cover gasket	sum	1		
24.5	Re-gasket primary and secondary Bushings	sum	1		
24.6	Re-gasket Tap-switch	sum	1		
24.7	Re-gasket inspection covers	sum	1		
24.8	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
24.9	Replace drain cocks	sum	1		
24.10	Replace sampling cocks	sum	1		
24.11	Replace the gasket of the core earth insulator	sum	1		
24.12	Replace Radiator Drain plugs	sum	1		
24.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
24.14	Treat oil contaminated crusher stones	sum	1		
24.15	Treat oil contaminated plinth	sum	1		
24.16	Treat rust (exterior transformer, conservator tank).	sum	1		
24.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
24.18	Top up transformer with oil	L	630		
24.19	Purify oil.	L	9000		
24.20	Testing of oil before and after refurbishment	sum	1		
24.21	Clean, treat and paint transformer and fins.	sum	1		
24.22	Replace sight glass	sum	1		
24.23	Replace gasket conservator tank	sum	1		
24.24	Replace silica gel breather	ea	1		
24.25	Supply and put in new silica gel	sum	1		
24.26	Supply and install new oil and winding temperature gauges	sum	1		
24.27	Replace gasket on Buchholz relay	sum	1		
24.28	Replace gasket breather	sum	1		
24.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
24.30	Supply, deliver and Install 132kV main transformer Primary Bushings	ea	3		
24.31	Testing and commissioning	sum	1		
Total for Quarry Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
25.	Quarry Main Transformer- Unit B				
25.1	P & G costs				
25.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
25.2	RISK AND SAFETY				
25.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
25.3	Drain oil to prepare for transformer refurbishment	sum	1		
25.4	Replace top cover gasket	sum	1		
25.5	Re-gasket primary and secondary Bushings	sum	1		
25.6	Re-gasket Tap-switch	sum	1		
25.7	Re-gasket inspection covers	sum	1		
25.8	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
25.9	Replace drain cocks	sum	1		
25.10	Replace sampling cocks	sum	1		
25.11	Replace the gasket of the core earth insulator	sum	1		
25.12	Replace Radiator Drain plugs	sum	1		
25.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
25.14	Treat oil contaminated crusher stones	sum	1		
25.15	Treat oil contaminated plinth	sum	1		
25.16	Treat rust (exterior transformer, conservator tank).	sum	1		
25.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
25.18	Top up transformer with oil	L	630		
25.19	Purify oil.	L	9000		
25.20	Testing of oil before and after refurbishment	sum	1		
25.21	Clean, treat and paint transformer and fins.	sum	1		
25.22	Replace sight glass	sum	1		
25.23	Replace gasket conservator tank	sum	1		
25.24	Replace silica gel breather	ea	1		
25.25	Supply and put in new silica gel	sum	1		
25.26	Supply and install new oil and winding temperature gauges	sum	1		
25.27	Replace gasket on Buchholz relay	sum	1		
25.28	Replace gasket breather	sum	1		
25.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
25.30	Supply, deliver and Install 132kV main transformer Primary Bushings	ea	3		
25.31	Testing and commissioning	sum	1		
Total for Quarry Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
26.	Quarry substation Auxiliary Transformer- Unit A				
26.1	P & G costs				
26.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
26.2	RISK AND SAFETY				
26.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
26.3	Drain oil to prepare for transformer refurbishment	sum	1		
26.4	Replace top cover gasket	sum	1		
26.5	Re-gasket primary and secondary Bushings	sum	1		
26.8	Re-gasket inspection covers	sum	1		
26.9	Replace stop cocks	sum	1		
26.10	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
26.11	Replace sampling cocks	sum	1		
26.12	Replace the gasket of the core earth insulator	sum	1		
26.13	Replace Radiator Drain plugs	sum	1		
26.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
26.15	Treat oil contaminated crusher stones	sum	1		
26.16	Treat oil contaminated plinth	sum	1		
26.17	Treat rust (exterior transformer, conservator tank).	sum	1		
26.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
26.19	Top up transformer with oil	L	105		
26.20	Purify oil.	L	200		
26.21	Testing of oil before and after refurbishment	sum	1		
26.22	Clean, treat and paint transformer and fins.	sum	1		
26.23	Replace sight glass	sum	1		
26.24	Replace gasket conservator tank	sum	1		
26.25	Replace silica gel breather	ea	1		
26.26	Supply and put in new silica gel	sum	1		
26.27	Replace gasket on Buchholz relay	sum	1		
26.28	Replace gasket breather	sum	1		
26.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
26.30	Testing and commissioning	sum	1		
Total for Quarry Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
27.	Quarry substation Auxiliary Transformer- Unit B				
27.1	P & G costs				
27.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
27.2	RISK AND SAFETY				
27.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
27.3	Drain oil to prepare for transformer refurbishment	sum	1		
27.4	Replace top cover gasket	sum	1		
27.5	Re-gasket primary and secondary Bushings	sum	1		
27.8	Re-gasket inspection covers	sum	1		
27.9	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
27.10	Replace drain cocks	sum	1		
27.11	Replace sampling cocks	sum	1		
27.12	Replace the gasket of the core earth insulator	sum	1		
27.13	Replace Radiator Drain plugs	sum	1		
27.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
27.15	Treat oil contaminated crusher stones	sum	1		
27.16	Treat oil contaminated plinth	sum	1		
27.17	Treat rust (exterior transformer, conservator tank).	sum	1		
27.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
27.19	Top up transformer with oil	L	105		
27.20	Purify oil.	L	200		
27.21	Testing of oil before and after refurbishment	sum	1		
27.22	Clean, treat and paint transformer and fins.	sum	1		
27.23	Replace sight glass	sum	1		
27.24	Replace gasket conservator tank	sum	1		
27.25	Replace silica gel breather	ea	1		
27.26	Supply and put in new silica gel	sum	1		
27.27	Replace gasket on Buchholz relay	sum	1		
27.28	Replace gasket breather	sum	1		
27.29	Replace gasket pipe from Buchholz to the main	sum	1		
27.30	Testing and commissioning	sum	1		
Total for Quarry Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
28.	Leeu-Gamka Main Transformer- Unit A				
28.1	P & G costs				
28.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
28.2	RISK AND SAFETY				
28.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
28.3	Drain oil to prepare for transformer refurbishment	sum	1		
28.4	Replace top cover gasket	sum	1		
28.5	Re-gasket primary and secondary Bushings	sum	1		
28.6	Re-gasket Tap-switch	sum	1		
28.7	Re-gasket inspection covers	sum	1		
28.8	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
28.9	Replace drain cocks	sum	1		
28.10	Replace sampling cocks	sum	1		
28.11	Replace the gasket of the core earth insulator	sum	1		
28.12	Replace Radiator Drain plugs	sum	1		
28.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
28.14	Treat oil contaminated crusher stones	sum	1		
28.15	Treat oil contaminated plinth	sum	1		
28.16	Treat rust (exterior transformer, conservator tank).	sum	1		
28.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
28.18	Top up transformer with oil	L	630		
28.19	Purify oil.	L	9000		
28.20	Testing of oil before and after refurbishment	sum	1		
28.21	Clean, treat and paint transformer and fins.	sum	1		
28.22	Replace sight glass	sum	1		
28.23	Replace gasket conservator tank	sum	1		
28.24	Replace silica gel breather	ea	1		
28.25	Supply and put in new silica gel	sum	1		
28.26	Supply and install new oil and winding temperature gauges	sum	1		
28.27	Replace gasket on Buchholz relay	sum	1		
28.28	Replace gasket breather	sum	1		
28.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
28.30	Testing and commissioning	sum	1		
Total for Leeu-Gamka Main Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
29.	Leeu-Gamka Main Transformer- Unit B				
29.1	P & G costs				
29.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
29.2	RISK AND SAFETY				
29.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
29.3	Drain oil to prepare for transformer refurbishment	sum	1		
29.4	Replace top cover gasket	sum	1		
29.5	Re-gasket primary and secondary Bushings	sum	1		
29.6	Re-gasket Tap-switch	sum	1		
29.7	Re-gasket inspection covers	sum	1		
29.8	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
29.9	Replace drain cocks	sum	1		
29.10	Replace sampling cocks	sum	1		
29.11	Replace the gasket of the core earth insulator	sum	1		
29.12	Replace Radiator Drain plugs	sum	1		
29.13	Replace gasket between the fins, main tank and conservator tank	sum	1		
29.14	Treat oil contaminated crusher stones	sum	1		
29.15	Treat oil contaminated plinth	sum	1		
29.16	Treat rust (exterior transformer, conservator tank).	sum	1		
29.17	Clean, treat and spray-paint conservator tank with white paint	ea	1		
29.18	Top up transformer with oil	L	630		
29.19	Purify oil.	L	9000		
29.20	Testing of oil before and after refurbishment	sum	1		
29.21	Clean, treat and paint transformer and fins.	sum	1		
29.22	Replace sight glass	sum	1		
29.23	Replace gasket conservator tank	sum	1		
29.24	Replace silica gel breather	ea	1		
29.25	Supply and put in new silica gel	sum	1		
29.26	Supply and install new oil and winding temperature gauges	sum	1		
29.27	Replace gasket on Buchholz relay	sum	1		
29.28	Replace gasket breather	sum	1		
29.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
29.30	Testing and commissioning	sum	1		
Total for Leeu-Gamka Main Transformer- Unit B (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
30.	Leeu-Gamka Auxiliary Transformer- Unit A				
30.1	P & G costs				
30.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
30.2	RISK AND SAFETY				
30.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
30.3	Drain oil to prepare for transformer refurbishment	sum	1		
30.4	Replace top cover gasket	sum	1		
30.5	Re-gasket primary and secondary Bushings	sum	1		
30.8	Re-gasket inspection covers	sum	1		
30.9	Replace stop cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
30.10	Replace drain cocks	sum	1		
30.11	Replace sampling cocks	sum	1		
30.12	Replace the gasket of the core earth insulator	sum	1		
30.13	Replace Radiator Drain plugs	sum	1		
30.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
30.15	Treat oil contaminated crusher stones	sum	1		
30.16	Treat oil contaminated plinth	sum	1		
30.17	Treat rust (exterior transformer, conservator tank).	sum	1		
30.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
30.19	Top up transformer with oil	L	105		
30.20	Purify oil.	L	200		
30.21	Testing of oil before and after refurbishment	sum	1		
30.22	Clean, treat and paint transformer and fins.	sum	1		
30.23	Replace sight glass	sum	1		
30.24	Replace gasket conservator tank	sum	1		
30.25	Replace silica gel breather	ea	1		
30.26	Supply and put in new silica gel	sum	1		
30.27	Replace gasket on Buchholz relay	sum	1		
30.28	Replace gasket breather	sum	1		
30.29	Replace gasket pipe from Buchholz to the main	sum	1		
30.30	Testing and commissioning	sum	1		
Total for Leeu-Gamka Auxiliary Transformer- Unit A (Excluding VAT) carried to Final Summary					R

Item no.	Description	Unit	Qty	Rate	Price
31.	Leeu-Gamka Auxiliary Transformer- Unit B				
31.1	P & G costs				
31.1.1	P and G shall include all cost not directly relate to a specific item on the schedule of prices and rates. All items not specifically mentioned in the Schedule of Rates and prices and form part of contractor's requirements such as cost of stationery, as well as establishment of workers on site and removal of site establishment, it will also include the handing over of the site to the contractor and the handing back of the site after completion of work.	sum	1		
31.2	RISK AND SAFETY				
31.2.1	Cost for the risk and safety must include the risk assessment. The risk assessment is a full identification of the risks before the work starts and the necessary equipment, appropriate precautions and systems of work that must be provided and implemented. Cost for risk and safety include complete compliance with the current Occupational Health Safety Act. Included in risk and safety. The standardised Transnet Freight Rail induction shall be given to all staff of all contractors at the start of each project and the contractors shall send all his staff that will work on the TRIM site to the induction on the date as agreed on between the TRIM Service Manager and the <i>Contractor</i> .	sum	1		
31.3	Drain oil to prepare for transformer refurbishment	sum	1		
31.4	Replace top cover gasket	sum	1		
31.5	Re-gasket primary and secondary Bushings	sum	1		
31.8	Re-gasket inspection covers	sum	1		
31.9	Replace stop cocks	sum	1		
31.10	Replace drain cocks	sum	1		

Item no.	Description	Unit	Qty	Rate	Price
31.11	Replace sampling cocks	sum	1		
31.12	Replace the gasket of the core earth insulator	sum	1		
31.13	Replace Radiator Drain plugs	sum	1		
31.14	Replace gasket between the fins, main tank and conservator tank	sum	1		
31.15	Treat oil contaminated crusher stones	sum	1		
31.16	Treat oil contaminated plinth	sum	1		
31.17	Treat rust (exterior transformer, conservator tank).	sum	1		
31.18	Clean, treat and spray-paint conservator tank with white paint	ea	1		
31.19	Top up transformer with oil	L	105		
31.20	Purify oil.	L	200		
31.21	Testing of oil before and after refurbishment	sum	1		
31.22	Clean, treat and paint transformer and fins.	sum	1		
31.23	Replace sight glass	sum	1		
31.24	Replace gasket conservator tank	sum	1		
31.25	Replace silica gel breather	ea	1		
31.26	Supply and put in new silica gel	sum	1		
31.27	Replace gasket on Buchholz relay	sum	1		
31.28	Replace gasket breather	sum	1		
31.29	Replace gasket pipe from Buchholz to the main tank	sum	1		
31.30	Testing and commissioning	sum	1		
Total for Leeu-Gamka Auxiliary Transformer- Unit B (Excluding VAT) carried to Final Summary					R

FINAL SUMMARY

Item no	Description	Price
1	Muldersvlei Main Transformer- Unit A	
2	Muldersvlei Main Transformer- Unit B	
3	Muldersvlei Auxiliary Transformer- Unit A	
4	Muldersvlei Auxiliary Transformer- Unit B	
5	Huguenot Main Transformer- Unit A	
6	Huguenot Main Transformer- Unit B	
7	Huguenot substation Auxiliary Transformer- Unit B	
8	Soetendal Main Transformer- Unit A	
9	Soetendal Main Transformer- Unit B	
10	Soetendal substation Auxiliary Transformer- Unit A	
11	Soetendal substation Auxiliary Transformer- Unit B	
12	Gouda Main Transformer- Unit A	
13	Gouda Main Transformer- Unit B	
14	Gouda substation Auxiliary Transformer- Unit A	
15	Gouda substation Auxiliary Transformer- Unit B	
16	Sandhills Main Transformer- Unit A	
17	Sandhills Main Transformer- Unit B	
18	Sandhills substation Auxiliary Transformer- Unit A	
19	Sandhills substation Auxiliary Transformer- Unit B	
20	Hugo Main Transformer- Unit A	
21	Hugo Main Transformer- Unit B	
22	Hugo substation Auxiliary Transformer- Unit A	
23	Hugo substation Auxiliary Transformer- Unit B	
24	Quarry Main Transformer- Unit A	

25	Quarry Main Transformer- Unit B	
Item no	Description	Price
26	Quarry substation Auxiliary Transformer- Unit A	
27	Quarry substation Auxiliary Transformer- Unit B	
28	Leeu-Gamka Main Transformer- Unit A	
29	Leeu-Gamka Main Transformer- Unit B	
30	Leeu-Gamka Auxiliary Transformer- Unit A	
31	Leeu-Gamka Auxiliary Transformer- Unit B	
	The total of the Prices (excluding VAT) carried to C1.1 FORM OF OFFER	

Note: The above pricing list is standardised for items indicated irrespective of location of substation. Should contractor be required to test any of items stated anywhere in the section, quotation submitted to Transnet freight rail must not exceed amount stated above.

PART C3: SERVICE INFORMATION

Document reference	Title	No of pages
C3.1	This cover page <i>Service Information</i>	1
Annexure A	Contractors Health and Safety Specification Guide	158
Annexure B	Baseline Risk Assessment	9
Annexure C	Environmental Specification	22
	Total number of pages	50

C3.1 Service Information

1 Description of the service

1.1 Background

Seven of our traction substation units are currently offload due to the failed transformer oil tests and critical condition of the transformers as they are leaking very badly. This impacts our network availability which is currently low, and it also directly impacts the running of electric trains in this section due to poor network availability of the substations. Once we can refurbish these transformers and purify the oil, these 7 units can be switched back on which will improve our network availability.

1.2 Executive overview

This specification covers the works that needs to be carried out by the contractor for the supply and installation of 132kV transformer primary bushings and refurbishment of Transformers for the following substations:-

- Muldersvlei: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers
- Huguenot: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers
- Soetendal: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers
- Gouda: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers
- Sandhills: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers
- Hugo: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers and install new primary 132kV main transformer bushings for both A and B unit main transformers
- Quarry: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers and install new primary 132kV main transformer bushings for both A and B unit main transformers
- Leeu-Gamaka: Refurbish transformers and purify oil for both A and B unit main and Auxiliary transformers

1.3 Employers Objective

It is the objective of the *Employer* to achieve completion of the refurbishment of transformers and installation of main transformer bushings for Muldersvlei, Huguenot, Soetendal, Gouda, Sandhills,

Hugo, Quarry and Leeu-Gamka whilst still maintaining the highest quality and safety standards, at the site.

2 SERVICE

2.1 Temporary service, Affected Property & constraints on how the *Contractor* Provides the Service

2.1.1 *Employer's* Site entry and security control, permits, and Site regulations

The areas of work will be for the Bellville to Beaufort West in these following substations: -

- Muldersvlei – 22km from Bellville
- Huguenot – 43km from Bellville
- Soetendal – 68km From Bellville
- Gouda – 94km from Bellville
- Sandhills – 16 km from Worcester
- Hugo – 72km from Worcester
- Quarry – 97km from Worcester.
- Leeu- Gamka – 77km for Beaufort west

The *Contractor* shall ensure the safe passage of traffic to and around the working areas at all times.

2.1.2 People restrictions on Affected Property; hours of work, conduct and records:

2.1.2.1 The working hours shall be in accordance with the requirements of the Department of Labour or with the agreement of the relevant trade unions. This information relating to working hours shall be supplied to the *Service Manager* prior to commencement of the proposed working hours.

2.1.2.2 The *Contractor* keeps daily records of his people engaged on the Affected Property with access to such daily records available for inspection by the *Service Manager* at all reasonable times.

2.1.3 Cooperating with and obtaining acceptance of others

2.1.3.1 The *Contractor* shall not commit or permit any act that may interfere with the performance of the other parties operating in the area and shall carry out work in close liaison with the *Service Manager*.

2.1.4 Publicity and progress photographs

- 2.1.4.1 The *Contractor* shall obtain the permission and approval of the *Employer* before erecting any notice boards or using the details of the contract in any advertising media.
- 2.1.4.2 The *Contractor* does not advertise the contract or the project to any third party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Service Manager*.

2.1.5 Equipment provided by the Employer

- 2.1.5.1 None

2.1.6 Site Services and Facilities

- 2.1.6.1 The *Contractor* shall make his own arrangements for the supply of services such as electricity, potable water, ablutions, fire protection, lighting and all other services required for undertaking the *works*. The *Contractor* shall provide, maintain and finally remove proper portable latrines of sufficient number at his cost. Latrines shall be properly constructed and placed in suitable positions and maintained in a clean and sanitary working condition.
- 2.1.6.2 Where any of the above services can be made available by the *Employer*, the cost of meters, connections, reticulation and all other usage costs associated with the provision of services shall be to the *Contractor's* account. The applicable tariffs will be those that the Local Authority charges Transnet Freight Rail and shall be obtained by the *Contractor*.

2.1.7 The Employer provides the following facilities for the Contractor:

- 2.1.7.1 A Suitable construction site will be made available free of charge to the *Contractor* for the duration of the contract.
- 2.1.7.2 The site shall be clearly sign posted as being a construction site and shall be compliant with the relevant prevailing safety regulations and restrictions that might be in place until the *Contractor* has de-established from site and has been approved by the *Service Manager* or his duly appointed representative.
- 2.1.7.3 The layout of any construction site, if required, shall be submitted to the *Service Manager* for his approval before the *Contractor* starts erecting his camp. The layout of any construction site, if required, shall be submitted to the *Service Manager* for his approval before the *Contractor* starts erecting his camp.

2.1.8 Facilities provided by the Contractor

- 2.1.8.1 The *Contractor* shall make his own arrangements for the accommodation of all labour and comply with the requirements of the respective authorities.
- 2.1.8.2 No accommodation for the *Contractor's* and/or sub-contractor's employees will be available on site. No employee, with the exception of security watchmen, may, without written approval from the *Service Manager*, be accommodated on site.
- 2.1.8.3 The *Contractor* shall, at his own expense, provide for security and access to his construction sites as he may require. Control of access for construction plant onto public roads shall be in accordance with the requirements of the relevant roads authority and *Service Manager*.

2.1.9 The Contractor provides the following facilities for the Service Manager

- 2.9.1 The *Contractor* will not be required to provide any facilities for the use of the *Service Manager*.

2.1.10 Existing premises, inspection of adjoining properties and checking work of Others

- 2.1.10.1 The *Contractor* and the *Service Manager* will inspect the immediate surroundings and record any damage before work is started.
- 2.1.10.2 The *Contractor* shall ensure that no damage occurs to adjoining property. The *Contractor* shall negotiate with the property owner(s) for permission to work on their land for the purpose of carrying out the work (if necessary). The *Contractor* shall ensure that his workmen do not abuse any permissions granted by adjoining property owners allowing them on to their property for the execution of the work.

2.1.11 To be provided by the Contractor

- 2.1.11.1 The *Contractor* shall supply all labour, tools, materials, scaffolding and or hoisting plant and all safety harnesses that are required to execute this work, moreover, observe all working at heights regulations; all safety regulations and guidelines concerning construction works.
- 2.1.11.2 The maintenance, leasing, hiring and insurance of this equipment will solely rest with the *Contractor*.
- 2.1.11.3 The *Contractor* shall be responsible for his own arrangements with regards to the transport and safe keeping of this equipment and materials.
- 2.1.11.4 No liability will be accepted by Transnet for the safekeeping of the *Contractor's* materials.
- 2.1.11.5 The making of fires, for whatever purpose, on Transnet property is strictly prohibited.

2.1.12 Restoring of work site

2.1.12.1 The *Contractor's* responsibility is to leave the site and facilities clean, no drain blockages and no contamination to the environment. The *Service Manager* may order the *Contractor* to stop all work, until such time as, in his opinion, this condition has been met.

2.1.13 Existing Services

2.1.13.1 The *Contractor* shall take all reasonable precautions to protect existing services during the execution of the work and during relocation of such services.

2.1.13.2 Any pipe, cable, conduit or other services of any nature whatsoever indicated to the *Contractor* and subsequently damaged as a result of the *Contractor's* operations, shall be repaired and reinstated forthwith by the *Contractor* or by the Authority concerned, all at the expense of the *Contractor* and to the satisfaction of the *Service Manager*.

2.1.13.3 Whenever unknown services are encountered which interfere with the execution of the work and which require to be moved and relocated, the *Contractor* shall advise the *Service Manager*, in writing within 24 hours of such encounter, and the *Service Manager* will determine the extent of the work, if any, to be undertaken by the *Contractor* in removing, relocating, and reinstating such services.

2.1.14.4 Any work required to be undertaken by the *Contractor* in the moving and relocation of unknown services for which no provision is made in the contract document, or for which no applicable tender rates exist, will be dealt with according to the NEC TSC compensation events procedure.

2.2 Completion, testing, commissioning and correction of defects

2.2.1 The work to be done by the Completion Date

2.2.1.1 On or before the Completion Date the *Contractor* shall have done everything required to provide the *Service* before the Completion Date. The *Service Manager* cannot certify Completion until all the work has been done and is also free of Defects, which would have, in his opinion, prevented the *Employer* from using the works and others from doing their work.

2.2.1.2 The *Service Manager* arranges for the *Employer* to allow the *Contractor* access to and use of part of the *works* which he has taken over if they are needed for correcting a Defect. In this case the *defect correction period* begins when the necessary access and use have been provided.

2.2.1.3 6 (Six) months after final completion of the works the *contractor* shall return to site and retorque all the refurbished transformers.

2.3 Plant and Materials Standards and Workmanship

2.3.1 SUPPORTING SPECIFICATIONS

Transnet Rail Infrastructure Manager (enclosed)

- Contractors health and Safety Guide
- CEE. 0045.2014 Painting of steel components of electrical equipment.
- CEE. 0183.2014 Hot dip galvanizing and painting of electrification steelwork
- CEE 0224.2002: Drawings catalogues instruction manuals and spares list for electrical equipment supplied under contract.
- BBH7364: Transformer Oil Valve Cover.
- BBB5019 Version 07: Requirements for traction transformers for 3kv dc traction substation

SANS Specifications:

- Civil Standards SANS 11200
- National Building Regulations SANS 10400 – 1190
- General Structural SANS 11200AH- 11982
- Electrical code of Practice 10142-1 Edition 2
- All material and equipment used to be S.A.B.S. approved and workmanship to be of a high quality and standard, done to the satisfaction of Employer's Representative.
- SANS 1019: Standard voltages, currents and insulation levels for electricity supply.
- SANS 60529: Degree of protection provided by enclosures (IP code)
- SANS 61869-1: Instrument transformers Part 1: General requirements.
- SANS 62271-204: High-voltage switchgear and control gear Part 204: Rigid gas insulated
- SANS 1091: National Colour Standard.
- SANS 9001: Quality management systems – Requirements
- SANS 61869-2: Instrument Transformers Part 2. Current Transformers.

International Electrotechnical Commission (IEC)

- IEC 60296: Fluids for electrotechnical applications — Unused mineral insulating oils for transformers and switchgear.
- IEC 60376: Specification of technical grade sulphur hexafluoride (SF₆) for use in electrical equipment.
- IEC 60417: Graphical symbols for use on equipment.
- IEC 60455: Resin based reactive compounds used for electrical insulation.

- IEC 60815: Selection and dimensioning of high-voltage insulators intended for use in polluted conditions.
- IEC 60867: Insulating liquids - Specifications for unused liquids based on synthetic aromatic hydrocarbons

2.3.2 GENERAL

- 2.3.2.1 A site access certificate will be issued to the *Contractor* and must be displayed to any person on request thereof.
- 2.3.2.2 All Electrical work to be done by a Qualified Registered Electrician.
- 2.3.2.3 The Contractor must not turn off any Electrical or water supply without obtaining permission from the *Service Manager*.
- 2.3.2.4 In the event the *Service Manager* is dissatisfied for whatever reason with any or all the work performed by the *Contractor*, the *Service Manager* shall notify the *Contractor* thereof. The *Contractor* shall then correct and or redo the *works* at his own expense to the satisfaction of the *Service Manager*.
- 2.3.2.5 No advancement of any money will be considered.
- 2.3.2.6 The *Contractor* will issue all workers employed by him with the necessary protection clothing.
- 2.3.2.7 The successful *Contractor* shall give a list of his employees who shall perform the various tasks for Transnet.

2.3.3 SCOPE OF WORKS

TECHNICAL REQUIREMENTS

- 2.3.3.1 This project specification covers the requirements for refurbishment and purifying transformer oil for 16 traction transformers and 16 auxiliary transformers and also supply and install 132kV main transformer primary bushings (12) for 4 traction transformers for Bellville depot.
 - The *contractor* shall drain oil to the desired level to in order to execute any refurbishment work on the stepdown transformers.
 - The *contractor* shall inspect and ensure that no debris or loose objects are lodged in the transformer tank prior to doing any refurbishment work on the transformers.
 - The *contractor* shall ensure that the existing transformer oil is not contaminated prior to refilling it back to the transformer.
 - The *contractor* is responsible for cleaning any oil spillage from the Transformer.
 - The *contractor* shall test and commission the transformer and submit MEGGER and RATIO results on a test completion sheet before and after refurbishment.
 - The *contractor* is responsible for the purification of transformers
 - The *contractor* shall supply, deliver and install 132kV traction transformer bushings for four main traction transformers.

- The *contractor* shall supply new breathers and silica gel for all refurbished transformers.
 - The *contractor* shall supply new gauges for oil and winding protection for refurbished transformers.
- 2.3.3.2 The *Contractor* shall test and sample the oil before and after the refurbishment in accordance with the specification SANS 555 edition 4 of 2002 and the test shall be performed by fully accredited oil test laboratory of which proof of accreditation must be supplied to the *Service Manager*.
- 2.3.3.3 The tenderer shall provide the following tests for the transformers oil: -
- Moisture Content
 - Acid Content
 - Dielectric Strength Test
 - Dissolved Gas Analysis
- 2.3.3.4 The contractor shall provide containers for sampling and labels for the information to be supplied with the sample. The labels must make provision for the following information: -
- District / Depot
 - Location (of substation)
 - Date of sample
 - Sampled by: (name)
 - Unit Duty (Traction/ Auxiliary Transformers)
 - Unit Make
 - Unit Serial Number
 - Unit Voltage (kV)
 - Unit Capacity (MVA)
 - Sampling Point
 - Gauge Temperature
 - Contract Number
- 2.3.3.5 Transnet shall not accept samples unless all the information has been provided. Of special importance is the serial number and Temperature.
- 2.3.3.6 The Contractor shall provide a hard copy of the results to the *Service Manager*.
- 2.3.3.7 The test shall be performed by a fully accredited oil test laboratory of which proof of accreditation must be supplied to the *Service Manager*.

2.3.3.8 For each parameter tested, the *Contractor* shall show proof that oil conforms to this specification as follows after refurbishment.

2.3.3.8.1 PARAMETERS

PARAMETER	ACCEPTABLE
Electric Strength	> 30kV
Acid	< 0.30 mg KOH/g
Hydrogen	< 150 ppm
Methane	< 25 ppm
Carbon Monoxide	< 500 ppm
Carbon Dioxide	< 10000 ppm
Ethylene	< 20 ppm
Ethane	< 10 ppm
Acetylene	< 15 ppm
Moisture	

2.3.3.9 Crusher Stones

- The *Contractor* shall remove the necessary crusher stone before any excavation commences.
- The *Contractor* shall restore the crusher stone to its original condition once the installation work has been completed.
- The *Contractor* shall supply any additional crusher stone required to restore the trenched area to its original condition

2.3.3.10 Commissioning of Equipment

- The *Contractor* shall test, and commission all installed components.
- The *Contractor* or his/her representative shall be present and ensure that all his staff have been withdrawn from the HV equipment and warned that it will be treated as 'live' and must endorse the substation logbook to this effect. The *Contractor* is responsible for his/her safety and that of his/her staff.
- Protection staff and the *Service Manager* shall be on site when the functional tests are conducted. The Protection staff shall sign all the tests sheets acknowledging that he or she has witnessed the tests.
- The Protection staff or the *Service Manager* together with the *Contractor* shall compile a list of defects. These defects shall be rectified.
- In cases where the defects will not adversely affect safety and or satisfactory operation of the equipment, both the *Contractor* and the *Service Manager* shall sign the defects lists acknowledging the defects and these may be accepted subject to later rectification. The copy of these defects shall be given to the *Contractor* or his/her representative.

- Whenever an installation has been handed over with an undertaking to rectify certain defects, the *Contractor* and the *Service Manager* must ensure that the defects are rectified within 10 days from the date of the handover
- Any specific type of fault occurring three times within the guarantee period and which cannot be proven to be due to other faulty equipment not forming part of this contract shall automatically be deemed an inherent defect. Such inherent defect shall be fully rectified to the satisfaction of the *Service Manager* and at the cost of the *Contractor*.
- If urgent repairs have to be carried out by Transnet 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 TRIM the cost of material and labour.
- On completion of commissioning, the substation equipment shall be handed over by the *Contractor* to the *Service Manager*. This handing over shall be formally in writing.
- After this handing over, the *Contractor* must have no access to any substation equipment, except with the permission of the *Service Manager*.

2.3.4 DAILY SITE DIARY AND INSPECTION

2.3.4.1 The *Contractor* shall provide an A4 size triplicate book to be used as a Daily Diary for the duration of the Contract. The *Service Manager* shall retain the original copy, and the *Contractor* shall retain the first and second copy. The diary shall be completed on a daily basis.

2.3.4.2 In addition to this the *Contractor* shall provide an A4 size triplicate book to act as Site Instruction Book. The *Service Manager* shall retain the original copy and the *Contractor* shall retain the first and second copy. The diary shall be completed on a daily basis. Only the *Service Manager* will have the authority to issue site instructions to the *Contractor*.

2.3.5 Risks Assessed

- Working with step ladders.
- Working with electric tools
- Working on heights of more than 2 metres.
- Travelling/Transporting staff and material.
- Noises
- Hire plant and machinery
- Fire-fighting equipment
- Occupational health
- Personal protective clothing, equipment (PPE)

- Potential hazard situations (Dust masks)

2.3.6 Disposal of discarded material

The Contractor shall dismantle, remove and transport old equipment from site and return them to the Bellville depot.

3 Health and Safety Information

3.1 General

The *Contractor's* attention is directed to the Contractors Health and Safety Guide, and in particular to his Health & Safety Program, which must be submitted with his tender, as well as the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended and Regulations issued in terms thereof or un-repealed regulations issued in terms of the former Act no. 6 of 1983, in their entirety.

Without derogating from the Act or any un-repealed regulations issued in terms of legislation, or without purporting to limit the Contractor's responsibilities, the following are brought to the Contractor's attention:

3.1.1 For the purpose of the Act the site/s, to be demarcated as agreed to between the *Contractor* and the *Service Manager* before the works start, will be transferred to the control of the *Contractor* for the duration of the contract.

3.1.2 The *Contractor* shall appoint a health and safety coordinator to liaise at least fortnightly with the *Service Manager* on matters pertaining to occupational health and safety.

3.1.3 The *Contractor* is an 'employer' in his own right as defined in Section 1 of the Act 85 of 1993 and he shall fulfil all his obligations as an employer in terms of the Act.

3.1.4 The *Contractor* shall furnish the *Service Manager* with full particulars of any Sub-Contractor which he may involve in the contract and the Sub-Contractor shall be made aware of all the clauses in this contract pertaining to health and safety.

3.1.5 The *Contractor* shall advise the *Service Manager* of any hazardous or potentially hazardous situation, which may arise from, work being performed either by the *Contractor* or Sub-Contractor.

3.1.6 A letter of good standing in terms of Section 80 (*Employer* to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Deceases Act 1993 (Act 130 of 1993), must also be furnished.

3.1.7 The *Contractor* shall comply with the current Contractors Health and Safety Guide, 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 construction plant, equipment or materials, submit to the *Service Manager*:

- documentary proof of his procedural compliance with the Act, and
- particulars of the Health and Safety Program to be implemented on the site in accordance with the Contractors Health and Safety Guide.
- The *Contractor's* Health and Safety Program will be subject to agreement by the *Service Manager*, who may 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.

3.1.8 All clauses in this contract pertaining to health and safety form an integral part of this contract and if not complied with may be construed as breach of contract entitling the *Employer* to the appropriate remedies.

NB: The *Contractor* and his employees shall have valid safety inductions and medical certificates when accessing or working on site. Copies of which shall be submitted to the *Service Manager*. This will be at a time and location Transnet will arrange.

3.2 Hazard identification and risk assessment

The *Contractor's* appointed Site Representative and the *Service Manager* shall finalize a site-specific HIRA (Hazard Identification and Risk Assessment) document, on the day of site handover to the *Contractor*. This site-specific HIRA document, based on a continuous HIRA, must cover site-specific hazards and the safe management of these hazards. The HIRA document must be signed by the abovementioned representatives, and be accepted by the *Service Manager*, before any construction work can commence.

3.3 Substance abuse

The OHSA (Act 85 of 1993) clearly states in the Safety Regulations no. **2A "INTOXICATION"** **An employer or user, as the case may be, shall not permit any person who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace".** Transnet Freight Rail enforces this legislation by means of its Substance Abuse Policy, and therefore reserves the right to do substance abuse testing on anyone who enters their premises.

3.4 Safety Meetings

The *Contractor* shall ensure that a safety representative is appointed and regular safety meetings are held. Written minutes of these safety meetings shall be forwarded to the *Service Manager*. All costs related to the safety aspects required under this contract will be carried by the *Contractor's* and therefore be covered under the rates tendered.

NB: The tendered amount shall include for all costs to confirm to the Health and Safety requirements.

4 Quality Assurance requirements

- 4.1 The onus rests on the *Contractor* to produce work which will conform in quality and accuracy of detail to the requirements of the Specifications and Drawings, and the *Contractor* must, at his own expense, institute a quality control system and provide experienced technical staff together with all transport, instruments and equipment to ensure adequate supervision and positive control of the works at all times.
- 4.2 The *Contractor* submits his Quality Management System documents to the *Service Manager* as part of his programme to include details of:
- Quality Plan for the contract;
 - Quality Policy
 - Index of Procedures to be used

5 Plan

- 5.1 A plan is to be submitted with the tender. This program shall comply with the requirements as indicated in the Service Information and returnable Schedule.
- 5.2 The *Contractor* shows on his Accepted Plan and all subsequently revised plans showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations.
- 5.4 The *Contractor's* programme shows duration of operations in working days, the work week will be Monday's – Fridays 07:30 – 16:00.

6 Contractor's management, supervision and key people

- 6.1 The *Contractor* shall provide an organogram showing his key people and their lines of authority and communication.
- 6.2 The *Contractor* shall not change the project team as detailed in the organogram submitted by the *Contractor* and accepted by the *Service Manager* without the prior written approval of the *Service Manager*, which approval will not unreasonably be withheld by the *Service Manager*
- 6.3 The *Works* must conform to current professional engineering practices, standards and specifications and the *works* must be completed to the satisfaction of the *Service Manager*.
- 6.4 The *Contractor* and his sub-contractors, if any shall have suitably qualified Supervisors in charge of the project. The names and qualifications of the Supervisors together with full details of their experience in this field of work must be furnished. The tenderer must furnish the names and addresses of all proposed sub-contractors, which is subject to approval.

7 Insurance Provided by the Employer

- 7.1 Insurance provided by the *Employer* is contained in the Contract Data – Part 1.
- 7.2 Procedures for making insurance claims can be obtained from the *Service Manager*

8 Contract Change Management

- 8.1 The standard reporting forms that shall be used will be provided to the *Contractor*
- 8.2 No additional requirements apply to TSC Clause 60 series

9 Procurement

9.1 The *Contractor's* Invoices

- 9.1.1 The invoice states the following:
- Invoice addressed to Transnet SOC Limited;
 - Transnet Limited's VAT No: 4720103177;
 - Invoice number;
 - The *Contractor's* VAT Number; and
- 9.1.2 The invoice to be emailed to:
Xolile Damba: xolile.damba@transnet.net
and copied in is Estelle van Wyk: Estelle.vanwyk@transnet.net

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PROJECT NAME	FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS	
PROJECT NUMBER	WRAC-BLQ-54954	
PROJECT LOCATION	AT MULDERSVLEI, HUGUENOT, SOETENDAL, GOUDA, SANDHILLS, HUGO, QUARRY AND LEEU-GAMKA SUBSTATIONS	
PROJECT SCOPE	FOR THE SUPPLY AND INSTALLATION OF 132KV AND 66KV PRIMARY BUSHINGS FOR 3KV DC TRACTION TRANSFORMERS AND REFURBISHMENT OF MAIN AND AUXILIARY TRANSFORMERS	
PROJECT DURATION	8 WEEKS	
COMPILED BY		
APPROVED BY		
RESPONSIBLE SEGMENT	INFRA	
CONTRACT SPECIALIST	ESTELLE VAN WYK	

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1. Purpose

The purposes of this Health, Safety and Environmental Specification is to outline the Health, Safety and Environmental requirements pertaining to Rehabilitation and Construction projects. Also to ensure:

- Compliance with the requirements of Construction Regulations and HSE Legislation as well as Transnet Freight Rail.
- HSE requirements are budgeted for.
- Continuous improvement of HSE.

2. Scope

This specification applies to all Rehabilitation and Construction contractors and vendors.

3. Abbreviations

HSEP – Health, Safety and Environmental Plan

RC – Rehabilitation and Construction

RN – Rail Network

SOP – Standard Operating Procedure

TFR – Transnet Freight Rail

COID – Compensation for Occupational Injuries and Diseases

EMP – Environmental Management Plan

DOL – Department of Labour

HCS – Hazardous Chemical Substances

MSDS – Material Safety Data Sheet

OHS – Occupational Health and Safety

PPE – Personal Protective Equipment

HSE – Health, Safety and Environment

KZN – KwaZulu Natal

4. Definitions

Contractors, vendors and any other person is advised to consult the Construction Regulations, OHS Act, Act 85 of 1993 and Environmental Management Act regarding the clarification of certain words used in this specification.

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5. Policies

The contractor shall develop and implement health, safety and environmental policies regarding protection of the employees and environment.

6. HSE Budget

The contractor shall make provision for the cost of HSE measures in order to ensure safe execution of construction work.

7. Health, Safety and Environmental Plan (HSEP)

The Contractor shall develop and implement a health, safety and environmental plan in accordance with this health, safety and environmental specification. The health, safety and environmental plan must provide a systematic method of managing hazards according to the risk priority, and must include all mobilization and site set-up activities. The HSEP must be in writing and project specific.

The HSEP shall be accepted by the Regional RC safety department i.e. Gauteng, KZN and Cape prior to mobilization to the construction site.

Any proposed amendments or revisions to the approved HSEP shall be submitted to RC for consideration and acceptance.

8. Legal and Other Appointments

The contractor shall appoint in writing all employees as per project requirements. The duties of appointed employees shall be clearly stated in the appointment letter.

9. Project Organogram

The appointed contractor shall draw up an organogram detailing all the key role players and their contact details for the construction project.

10. Training and Competency

The Contractor shall ensure that all employees working in the construction site are adequately trained and competent in the type of work to be performed. The contractor shall provide valid documentation (e.g. certificate, licence etc.) to verify that employees are competent and have appropriate qualifications, job skills and training as required by applicable legislation.

Proof of the following minimum health and safety training is required before construction work commences:

- Management and Supervisory Appointees

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- IRCON
- Legal Liability
- HIRA (Hazard Identification and Risk Assessment)
- Incident Investigation
- Safety Officer
 - SAMTRAC
 - Incident Investigation/Root Cause Analysis Technique
 - IRCON
 - HIRA
 - National Diploma in Safety Management or other relevant national diploma (if possible)
- SHE Representative
 - SHE representative course 3/5 days
 - Level 1 incident Investigation
- First Aider
 - First Aid Level 1
- Employees
 - Basic health and safety training

The contractor's employees shall, were required by legislation be in position of relevant certificates or permits where operation being performed requires such certification, for example welder, crane operator, erectors, flagmen etc. The contractor shall develop a training matrix and implement it accordingly.

8.1 Induction Training

- **Project Induction**

The contractor shall ensure that all employees undergo RC induction prior to commencement of construction work. This RC induction training shall be conducted by Line Representative to ensure that contractor's employees are aware of and conversant with the requirements of this HSE Specification, Site Rules, Environmental Requirements and other requirements. The contractor shall ensure that all employees present a certificate of fitness to the trainer or safety officer prior to induction training. Failure to present a certificate of fitness will result to an employee not being allowed to partake in the induction training. The contractor shall keep records of all inducted employees.

- **Site specific induction**

The contractor shall ensure that all employees undergo site specific induction focusing on applicable legislative rules, site rules and requirements, existing hazards/risks and SOP's including emergency procedures etc. This induction training is the responsibility of the

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contractor. Whenever there is change in a scope of work or major incident or new method of doing work, employees must be re-inducted.

- **Visitors induction**

The contractor shall ensure visitors undergo site induction training prior to being allowed access to construction site. The contractor shall make proof of induction training available in the form of attendance register and/or induction badge.

- **Refresher induction**

The contractor shall ensure that all employees undergo refresher induction training after an absence of seven (7) consecutive days from the project site.

11. Letter of Good Standing & Tax Clearance

Prior to commencement of Construction work, a contractor shall submit valid Letter of Good Standing issued by the Compensation Fund or any other licensed insurer. On expiry of the said letter, the contractor shall resubmit the updated/ valid one for the duration of the construction project. No construction work shall be done without a valid letter of good standing.

A copy of valid Tax Certificate shall be submitted together with the Letter of Good Standing.

12. Notification of Construction Work to Dept. of Labour

A contractor shall notify the Provincial Director of the Department of Labour in writing before carrying out any construction work within 7 days. The contractor shall ensure that a copy of notification is kept safe on site for inspection by Department of Labour inspector or TFR representative.

13. Client Health, Safety and Environmental Specification

A principal contractor or contractor shall provide Client's HSE Specification to other contractors working for the principal contractor or contractor. The HSE Specification shall be kept in the contractor's safety file for reference. Before a contractor can appoint another contractor, the appointing contractor shall furnish R&C Regional Safety Office with the HSE File of the contractor to be appointed for approval.

14. Mandatory Agreement (37.2)

R & C Project Manager and the appointed Contractor Representative shall sign the 37(2) agreement prior to commencement of construction work. The agreement will confirm that the appointed person of any company shall remain responsible and accountable for his own employees, including any labour hire employees.

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15. Site Access Certificate

R & C Project Manager shall issue site access certificate prior to commencement of construction work to all appointed contractors after the approval of the HSE File.

16. Site Establishment

Site establishment shall commence as soon as the Site Access certificate has been granted. In addition, the appointed contractor shall develop a traffic plan for the site to ensure the safe movement of pedestrians, vehicles and all construction mobile plant.

This traffic plan shall be reviewed when necessary. Contractors shall ensure that established sites are adequately secured to protect material, plant, equipment and people.

17. Medical Certificate Of Fitness

Prior to commencement of work, the contractor shall demonstrate or confirm in writing that his/her employees have been declared medically fit by the Registered Occupational Health Practitioner. A contractor shall conduct periodic risk based medical examinations as prescribed by the Occupational Health and Safety (OHS) Legislation. For projects longer than 12 months, the contractor shall ensure that employees undergo medical examinations at least once a year. Records of such must be kept in safe place and made available on request.

18. Health, Safety and Environmental Meeting

The Contractor shall conduct monthly project safety meetings with his employees to address HSE related issues and promote safe practices. Records of such meetings including the attendance registers shall be made available to employees and for inspections or audits purposes.

19. Risk Management

19.1 Hazard Identification and Risk Assessment (HIRA)

The contractor shall conduct an initial Hazard Identification and Risk Assessment prior to commencement of construction work. Thereafter the contractor shall review the HIRA when there is an incident/accident and/or changes in the scope of work, plant, machinery, equipment, etc.

The contractor shall implement identified control measures to ensure that the risk(s) is/are kept as low as reasonably practicable. A contractor shall appoint a competent risk assessor to facilitate the HIRA process. This HIRA shall be signed and approved by contractor's management.

The approved HIRA shall be communicated and appropriate training shall be provided to employees. The records of communication and training shall be kept on site for inspections and audits purposes.

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19.2 Safe Work Procedures (SWPs) and Other Procedures

The contractor shall develop and implement safe work and other procedures, to ensure that the construction activities are carried out in a safe manner and without risk to the health and safety of employees and the environment. These procedures shall be signed and approved by the contractor's management.

The approved procedures shall be communicated and appropriate training shall be provided to employees. The records of communication and training shall be kept on site for inspections and audits purposes.

19.3 Planned Task Observations (PTOs)

The contractor shall identify critical tasks/activities and develop a schedule for task observations. The Contractor shall then conduct PTOs as per the task schedule. When sub-standard practices are identified they shall be discussed with the employee concerned and rectified immediately.

The PTOs shall be conducted by the following persons:

- Manager at least once a month
- Supervisor at least four a month, and
- Other

The records shall be kept on site for inspections and audits purposes.

19.4 Method Statements

The contractor shall compile method statements detailing the key activities to be performed in order to reduce as reasonable practicable the hazards identified in their risk assessment.

The method statement shall be signed and approved by the contractor's management.

The approved method statement shall be communicated and appropriate training shall be provided to employees. The records of communication and training shall be kept on site for inspections and audits purposes.

19.5 Daily Safety Task Instructions (DSTI)

R & C shall provide contractors with the DSTI template for implementation.

The contractor shall conduct DSTI on a daily basis before work commences and/or when the scope of work changes.

The contractor shall complete the DSTI regarding tasks for the shift, specific hazards and specific precautions and also refer to and discuss the precautions and controls of the relevant Risk Assessments with his/her team. The Supervisor and his team shall then sign the DSTI acknowledging communication thereof.

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19.6 Daily Safety Toolbox Talks

The contractor shall conduct a toolbox talk daily. One topic shall be discussed per week based on the risks associated with the construction projects or on the requirements of Transnet. The contractor shall develop a one page toolbox talk that will be discussed on construction site.

The records of communication shall be kept on site for inspections and audits purposes. It should be short (5 – 10 minutes) and to the point with a specific safety message.

20. Incident Management

20.1 Incident Reporting

The contractor shall report any work related incidents including “near misses” that have occurred on a construction site. The incident shall be reported immediately to R&C Management including HSE Department using the following mechanisms:

- verbally
- telephonically or
- via sms

Thereafter, the contractor shall submit a detailed incident notification to R&C Representative who will in turn complete a flash report within 24 hours of the occurrence.

20.2 Incident Investigation

The contractor shall investigate an incident in conjunction with R&C Representative(s) within seven (7) days of the occurrence. A detailed investigation report shall be submitted to R&C Representatives with seven (7) days of the occurrence.

20.3 Incident Record Keeping

The contractor shall keep all incident records as stipulated in the OHS and Environmental Legislation.

20.4 Incident Close Out

The contractor shall ensure that incident recommendations are implemented and closed out. The proof of incident close out shall be submitted to R&C Representative for capturing.

21. Project Health, Safety and Environmental (HSE) Inspection Records

The contractor shall conduct monthly HSE inspections to ensure compliance with R & C requirements and records of such inspections shall be kept on site for scrutiny by either R & C HSE department or Department Of Labour Inspectors.

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22. First Aid Services

The Contractor shall ensure that he/she implements and complies with OH&S Act - General Safety Regulation 3. The Contractor shall provide a person qualified to give First Aid attention on the Site at all times. The competency certificate must be valid for three (3) years and provided by an accredited service provider. The Contractor shall provide and maintain First Aid equipment on site. The equipment is up to standard as prescribed by the Statutory Regulations.

- **First Aid Boxes**

The contractor shall provide first boxes/kits with contents as per minimum legal requirements. Boxes shall be provided in all working areas and kept locked. Records of such are to be kept in an appropriate register of all treatment done.

- **Smoking**

The contractor shall not permit smoking on site except within designated smoking areas selected in accordance with applicable Laws, Rules, Regulations, and Policies.

- **Sun Protection**

The contractor shall ensure that all employees are protected in sunlight by the use of long sleeve shirts, long trousers, sun brims on safety helmets, UV factored sunscreen and shade structures.

The contractor shall conduct Training and Awareness Sessions with his/her employees, advising on the risks of working in the heat and dehydration and the precautions to be taken including an acceptable fluid intake depending on conditions. The contractor shall ensure that adequate water is made available to his/her employees.

23. Project Health, Safety and Environmental Audits

The HSE Department will conduct internal HSE audits to ensure compliance with R & C requirements. The audit schedule will be determined by the HSE department and will be communicated to the contractor. Contractor's line management shall form part of the HSE audits conducted by R & C HSE department. Findings of the audit will be communicated to the contractor after the audit has taken place on site. Thereafter a detailed report will be forwarded to the contractor within seven (7) days of post audit.

24. Contingency/Emergency Plan, Procedure & Contact Numbers

The contractor shall prepare an emergency procedure which will address any emergency situation that is likely to occur on a project site. The procedure must, in particular, emphasise the importance of the contractor's role in communicating the procedure to all of their site personnel and clearly define the steps and actions the person reporting the emergency is responsible for.

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The Emergency Preparedness Plan deals with the emergency situation as fast and efficiently as possible, to minimise loss of life, the protection of property and the maintenance of services necessary for the wellbeing of employees. The plan shall include valid local emergency contact numbers and must be easily accessible.

25. Mobile Plant and/or Construction Vehicles Inspection and Maintenance Records

The contractor shall ensure that all the construction vehicles and mobile plants are of an acceptable design and construction, maintained in a good working order, are on daily basis inspected prior to use, by competent person who has been appointed in writing and the findings of such are recorded in the register. Before the contractor's plant and machinery could be allowed on site, the R & C representative will conduct inspection on them and when compliant they will be given access to R & C sites.

26. Registers

The contractor shall ensure that the registers for example tool, plant, machinery, etc. are kept up to date on site for inspection and audit purposes.

27. Checklists

The contractor shall cause that monthly inspections are conducted and that all relevant checklists are used. These should be kept on site for inspection and audit purposes.

28. Substance Abuse Management

The contractor shall develop and implement substance abuse management policy. The policy shall include the frequency of testing and steps to address issues relating to substance abuse and work wellness. The testing of substance shall be conducted by competent person. The results of such tests shall be kept safe and made available during inspection and audits.

29. Material Safety Data Sheets(MSDS)

The contractor whom the scope of work requires him/her to make use of any chemicals, shall be in a possession of a relevant MSDS/s. The MSDS/s shall then be communicated to the employees and be kept on site as a record.

30. Health, Safety and Environmental Statistics

The contractor shall complete and submit consolidated HSE stats to R & C representative on the last day of every month.

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31. Copy of the OHSACT Act (85 of 1993) & Other Statutory Legislations

The contractor shall keep a copy of the Occupational Health and Safety Act 85 of 1993 with the regulations and any other statutory legislation on site at all times.

32. Welfare Facilities

The Contractor shall provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities:

- At least one sanitary facility (Toilets) for each sex and for every 30 workers, changing facilities for each sex; and sheltered eating areas.

33. Hygiene

The Contractor shall ensure that its personnel maintain high standards of hygiene in connection with the performance of work. All work areas shall be maintained in a clean and tidy state and must promptly and appropriately dispose of all waste material.

34. Contractor Health, Safety & Environmental File Contents

The contractor shall prepare an HSE file and submit it to R & C representative for approval and the files shall contain but not limited to the following documentations:

- Notification of Construction
- Valid Letter of Good standing with the Compensation Commissioner
- Tax Clearance Certificate
- Policies
- All legal appointment letters
- List of Contractor's Employee,
- Site specific SHE Plan
- Hazard identification & Risks Assessments (Issue base)
- Method Statements
- SHE Induction Training
- Certificates of medical fitness
- Equipment maintenance and inspection
- PPE Issue control sheet
- Training Records
- Standard Operating Procedures (SOP's)
- Safe Working Procedures
- Daily Safety Talks

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- Project Audit Records
- Incident Management
- Contingency/ Emergency Plan, Procedure & Contact Numbers
- Project Registers/Forms
- Checklists
- RC HSE Specification
- Substance Abuse Management
- HSE Stats
- Material Safety Data Sheet (MSDS)
- Copy of the OHS Act & Regulations and Other Statutory Legislation
- Inspection records
- Project related procedures
- Planned Task Observations
- Environmental Management Plan
- Additional Task Controls and requirements

The contractor shall keep the file on site for inspection and audit purposes.

35. Environmental Management

The contractor shall ensure that his/her site complies with the requirements of the National Environmental Management Act (NEMA), 107 of 1998, (duty of care principles) and is committed to the care of the environment and therefore making an effort in implementing best practices in this regard. The contractor working or operating on R & C premises are therefore obliged to operate in an environmental friendly manner and put measures in place to prevent pollution and damage to the environment.

36. Waste Management

The contractor shall institute on-site waste management general duties and take all reasonable measures to:

- Dispose in a responsible manner according to waste manifesto and on approved waste disposal site. Record should be kept of waste disposed according to safe disposal certificates. These certificates should be kept by contractor and copies with R & C HSE Department. Daily waste disposal should be captured in site diary.
- Not endanger health/environment/cause nuisance-noise, odour or visual impact
- Prevent any employee/any person under supervision from contravening this Act
- Prevent the waste used for unauthorized purpose

The waste management program will address, but is not limited to, the following:

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- An inventory of expected wastes and their categories;
- Categories of waste;
- Plan of dealing with waste (Waste Management Plan)
- Compliance with local authority requirements;

37. Handling of Waste on Sites

The contractor shall have an Environmental Control Plan, which shall be approved by R & C representative. This control plan which must be kept on site at all times must include but not limited to the following:

- Dust control measures
- Noise Control (e.g. source of noise, levels and abatement measures)
- Water Management
- Waste Water/effluent Management
- Sewer treatment/disposal plan
- Waste Management Plan (Identify types of waste to be generated)
- Pollution control
- Spill response plan
- Rehabilitation and re-vegetation of site

38. Other Records

The contractor shall keep any other records required in terms of Occupational Health and Safety Act 85 of 1993 and Regulations to ensure safe execution of the construction project including good practices.

39. Additional requirements

N/A



A Division of Transnet SOC Limited

TECHNOLOGY MANAGEMENT

SPECIFICATION

REQUIREMENTS FOR TRACTION TRANSFORMERS FOR 3kV DC TRACTION SUBSTATIONS

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Date: 29 November 2024

Circulation Restricted To:

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LIST OF AMENDMENTS TO THE SPECIFICATION

Version No.	Date Issued	Clause No.	Page No.	Remarks
06	07/11/2018			Original version
06	30/06/2021			Technical documentation requirements revised. One copy instead of two copies required.
07	16/09/2021			POPIA declaration statement inserted
				Appendix B Technical data sheet structure re-numbered
				Definitions and abbreviations added to the document
				Method of tendering changed to technical compliance
				Documents requirements divided into documents to be submitted by all tenderers and documents to be submitted only by the successful tenderer
07		6.8.4		Clause added
07		8.4		Clause added
07				Re-numbering of the entire document
07		10.0		Clauses re-numbered and added
07		11.0		Clauses added

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1.0 SCOPE

- 1.1 This specification details Transnet's requirements for the design, manufacture, testing and delivery of traction transformers for 3kV DC traction substations.
- 1.2 This specification contains schedule of requirements (Appendix A) which must be completed by the relevant Transnet Representative.
- 1.3 This specification contains a technical datasheet (Annexure B) which must be completed by the tenderer and must be submitted as part of the tender documents.

2.0 BACKGROUND

- 2.1 Transnet's traction substations consist of single or double-units', each unit has a traction transformer which supplies either a 6 - pulse or 12 - pulse rectifier configurations.
- 2.2 Each rectifier unit comprises of a set of high voltage AC disconnects, primary circuit breaker, two current transformers, two sets of lightning arrestors and a traction transformer connected for six or twelve-pulse rectification with its control and protection circuitry.

3.0 ABBREVIATIONS

AC:	Alternating Current
Hz:	Hertz
kA:	kilo Ampere
kV:	kilo Volt
MΩ:	Mega Ohm
OEM:	Original Equipment Manufacturer
V:	Volt

4.0 NORMATIVE REFERENCES

Unless otherwise specified all materials used, equipment developed and supplied shall comply with the latest edition of the relevant International Electro-technical Commission (IEC), International Organization for Standardization (ISO), South African National Standards (SANS) or Transnet's publications.

4.1 SOUTH AFRICAN NATIONAL STANDARDS

SANS 121:	Hot Dip Galvanized Coatings on Fabricated Iron and Steel articles.
SANS 555:	Unused and reclaimed mineral insulating oils for transformers and switchgear.
SANS 1019:	Standard voltages, currents and insulation levels for electricity supply.
SANS 1091:	National Colour Standards.
SANS 9001:	Quality Management Systems – Requirements.
SANS 10142-1:	The wiring of premises Part 1- Low voltage installations.
SANS 60076-1:	Power Transformers Part 1- General.
SANS 60076-2:	Power Transformers Part 2- Temperature rise for liquid immersed transformers.
SANS 60076-3:	Power Transformers Part 3- Insulation levels, Dielectric tests and External clearances in air.
SANS 60076-5:	Power Transformers Part 5- Ability to withstand short circuit.
SANS 60076-7:	Power Transformers Part 7- Loading Guide for Oil-immersed Power Transformers.
SANS 60076-10:	Power transformers Part 10: Determination of sound levels.
SANS 60076-18:	Power transformers Part 18: Measurement of frequency response.

SANS 60137: Insulated Bushings for Alternating Voltages above 1000V.

SANS 61869-2: Instrument Transformers Part 2- Current Transformers.

4.2 TRANSNET'S PUBLICATIONS

BBH7364: Transformer Oil Valve Cover

CEE 0045: Painting of Steel Components of Electrical Equipment.

CEE 0224: Drawings, Catalogues, Instruction manuals and Spare lists for electrical equipment supplied under the contract.

5.0 SERVICE CONDITIONS

5.1 ENVIRONMENTAL CONDITIONS

Altitude: 0 - 1800 m above sea level

Relative humidity: 10% to 90%

Ambient temperature: -10° C to +55° C

Wind pressure: 750 Pa

Lightning conditions: 20 ground flashes/km² per annum

Pollution: Heavily salt laden with industrial pollutants
Including diesel- electric locomotive emissions.

5.2 MECHANICAL SERVICE CONDITIONS

The transformers are installed in substations next to or within close proximity of railway tracks and will be subjected to vibration from the trains.

5.3 ELECTRICAL SERVICE CONDITIONS

5.3.1 Frequency: The frequency of the AC High Voltage supplied by the utility will be 50 ± 2.5 Hz.

5.3.2 Supply Voltage: Under normal conditions the system supply voltage will be maintained at ±5% of the nominal voltage over a 24-hour period. Under crippled supply network conditions, the voltage can be expected to drop up to 15%.

6.0 TECHNICAL REQUIREMENTS

6.1 GENERAL

6.1.1 Unless specified the transformers shall be for outdoor use and of the oil natural air natural (ONAN) cooled type and shall comply with specification SANS 60076-1.

6.1.2 All components used in the traction transformer shall be free from polychlorinated biphenyls (PCB free).

6.1.3 The design of the transformers shall be such that harmonic disturbances are minimised.

6.1.4 The primary winding of the main traction transformer shall be star connected.

6.1.5 The configuration of the secondary winding shall either be two separated delta windings giving +15° and - 15° phase shift on the respective secondary windings or two separated delta and star windings which achieve the same desired phase shift as the delta-delta windings. The secondary winding shall consist of six phases and the output voltage of each phase shall be approximately from 1220V to 1440V depending on the vector group.

6.1.6 The secondary windings shall be designed to be compatible with 6 or 12 pulse rectifier units.

6.1.7 The substation Senior Electrical Engineer at Transnet Freight Rail – Technology Management shall be consulted to accept before any transformer design is finalized.

6.1.8 Provision shall be made for a three-phase tertiary winding on the secondary side of the transformer to supply the auxiliary transformers. The winding may be tapped off the secondary winding or be separately wound. The tertiary winding shall have separate bushings for connection to the auxiliary transformer. The tertiary voltage shall match that of auxiliary transformer primary voltage.

6.1.9 The tertiary winding shall be rated to supply a 50kVA 400V 3-phase auxiliary transformer (230V AC single phase) unless otherwise specified.

6.2 TEMPERATURE RISE AND RATING

6.2.1 The temperature rise of the transformer windings after thermal equilibrium and a steady temperature has been reached on continuous full load, shall not exceed 65°C.

6.2.2 The maximum temperature rise of the windings subsequent to the application of any of the following rectifier overloads, after the constant continuous rated full load temperature has been attained are as follows:

- 3 x full load for 1 minute the temperature rise of the windings shall not exceed 70°C.
- 3.5 x full load for 10 seconds the temperature rise of the windings shall not exceed 70°C.
- 2 x full load for 30 minutes the temperature rise of the windings shall not exceed 100°C.

6.2.3 The temperature rise of the windings shall be measured by the increase of resistance method. Standard correction for cooling during the measurement of resistance shall be applied.

6.3 VOLTAGE RATIO AND TAPPINGS

6.3.1 The transformer shall be designed to operate at the nominal system voltage as specified in the schedule of requirements

6.3.2 Tappings shall be provided on the primary windings. (5 tap position). The tap range shall be +2,5% and -2,5%, and +5% and -5% of the nominal voltages.

6.3.3 The transformers shall supply full load output at all tapings.

6.3.4 The full load voltage regulation of the transformer shall not be more than 5%.

6.3.5 The tap changing gear shall be externally, manually operated, positively locking, off load type. The arrangement shall be such that excessive backlash will not affect the making of proper contact when the tap changing gear is operated in either direction. Rotary type having high-pressure type contacts must be used.

6.3.6 The tap changing switch shall be lockable with provision for a padlock.

6.3.7 The positions of the tap changing switch shall be clearly marked.

6.4 BUILT IN CURRENT TRANSFORMERS

6.4.1 Where build-in current transformers are required, the transformer's functionality shall be in accordance with SANS 61869-2. The ratings of the current transformers shall be sent to Technology Management for approval.

6.5 TRANSFORMER IMPEDANCE

6.5.1 The transformer impedance shall be as high as possible taking into account the voltage regulation as specified in clause 6.3.3 but shall not be less than 8 %.

6.6 MECHANICAL STRENGTH OF TRANSFORMER WINDINGS

6.6.1 The transformer windings shall be able to withstand the electromagnetic and mechanical stresses caused by high fault currents.

6.6.2 In the adjudication of tenders particular attention will be given to:

- The mechanical design of the solid bolted clamping arrangement of the windings.

- The coil stacks in order to withstand short circuit forces.
 - The methods employed to ensure thorough pre-shrinking and pre-stressing of the coils.
- 6.6.3 Tenderers shall describe fully with the aid of detailed drawings of the construction of the windings and clamping arrangements.
- 6.6.4 Tenderers shall quote for transformers having the following design features listed below. No alternative to the requirements laid down in the following sub clauses will be considered unless complete details are submitted giving the advantages and improvements that will result:
- 6.6.4.1 Primary and secondary coil stacks shall be provided with solid bolted clamping arrangements which will distribute the clamping force over the whole end periphery of each coil stack.
- 6.6.4.2 Tenderers shall state the actual force anticipated under the worst fault conditions and the effective force applied by the clamping bolts on each winding.
- 6.6.4.3 Round conductor shall not be used for any windings.
- 6.6.4.4 High voltage windings shall be of the continuous disc type while low voltage windings shall be of the helix winding type.
- 6.6.4.5 Reliance shall not be placed on any resin used on the windings for increasing the mechanical stability of the coils, nor shall such resin have any detrimental effect on the transformer oil.
- 6.6.4.6 If laminated insulating material is subjected to mechanical compression forces, the construction shall be such that these forces are normal to the plane of the laminations.
- 6.6.4.7 All spacers and clacks on packing shall be suitably locked in position. Reliance shall not be placed on the pressure applied to the windings, or an adhesive, to keep the packing pieces in position.
- 6.6.4.8 The end frames shall be well braced and be of substantial construction.
- 6.6.4.9 The internal copper connections between the windings and connections to the leads shall be crimped and bolted.
- 6.6.4.10 Only high tensile steel bolts shall be used for the bolted connections.
- 6.6.4.11 The nuts of the bolted connections shall be torqued to the following recommended values to ensure a good stable electrical contact between the mating surfaces:

Bolt Size	Torque value
M10	35.5NM
M12	61.3NM
M16	147 NM

- 6.6.4.12 Standard machine locknuts or approved locking plates shall be used to lock the nuts of the bolted connections.

6.7 INSULATION LEVELS

- 6.7.1 Transformer bushings shall comply with SANS 60137.
- 6.7.2 Test voltages and minimum creepage distances for normal and polluted atmospheres shall be in accordance with SANS 60137.

6.8 INSULATION OF WINDINGS

- 6.8.1 The transformers are required to operate in severe lightning areas. Surge arresters will be connected between the high voltage busbars and the substation earth. The neutral of the primary Star connected windings is not required to be brought out.
- 6.8.2 All windings are to be fully insulated. Full and detailed particulars of the insulation and methods employed to reduce the risk of damage by overvoltage caused by system surges and lightning must accompany the tender.

6.8.3 The primary and secondary windings shall be insulated to withstand the test pressures referred to in SANS 60076-1. The secondary windings must be insulated for a system highest voltage of 7,2 kV.

6.8.4 All the transformer windings shall be designed to have uniform insulation, to reduce the risk of partial discharge and improve the thermal stability of the transformer.

6.9 TERMINALS AND BUSHINGS

6.9.1 All terminals shall be extended to the top of the transformer tank through suitable outdoor type bushings.

6.9.2 The bushings shall conform to the insulation levels as specified in SANS 60137 for the system nominal supply voltage at which the equipment must operate.

6.9.3 All bushings, stems and terminals shall be of sufficient size to ensure sufficient mechanical strength of attaching and supporting external connections and shall not be smaller than
a) 19 mm diameter for primary and secondary connections.
b) 12 mm diameter for auxiliary supply connections.

6.9.4 Provision shall be made for an earthing terminal fitted on the outside of the transformer tank for the connection of a 95 mm² cable.

6.9.5 The height of the wall bushings of the substation is 2,8 meters above ground level. Should the design of the transformer offered be such that the total height of the transformer and secondary bushings is less than 2,7 meters, screens must be provided. Tenderers must include the provision of screens in their offer. Details of the screens shall be submitted to Transnet Freight Rail Technology Management – Senior Electrical Engineer for approval.

6.9.6 The clearance from the lowest, high voltage connection of the transformer to the finished ground level shall not be less than 3,6m for supply voltages up to 88kV, and not less than 4,1m for supply voltages exceeding 88kV.

6.10 TANK AND COOLING RADIATORS

6.10.1 The transformer tank shall be constructed of steel plate not less than 6 mm thick.

6.10.2 Transformers shall not be fitted with rollers, but be provided with a substantial base, which will enable it to be supported on steel skid rails, which are embedded in a concrete plinth. The spacing between centres of the skid rails is 1000 mm.

6.10.3 Provision shall be made on the transformer base for the attachment of a tackle for this purpose.

6.10.4 Four jacking lugs shall be provided for lifting the transformer complete with oil. Tenderers shall submit dimensioned drawings showing details of the tank and base construction.

6.10.5 Transformers shall be fitted with detachable radiators with drain and filling plugs.

6.10.6 Provision shall be made for radiator shut off valves to allow the removal of the radiators without having to drain the oil from the transformer tank.

6.10.7 The design of the cooling radiators shall ensure sufficient circulation of cooling oil.

6.10.8 Hot dipped galvanized radiators shall be used for coastal areas or where specified. The radiators shall be galvanized in accordance to the requirements of SANS 121.

6.10.9 The transformer cover shall be bolted to the tank. For this purpose, a flange will be embedded on to the tank. An “O-ring” gasket will be installed between the cover and the tank to prevent oil leaks.

6.10.10 All access covers shall be bolted to the transformer tank and shall be provided with “O-rings” to prevent oil leaks. And they shall have handles and lifting lugs.

6.11 FITTINGS ON THE TRANSFORMERS

The following fittings shall be provided:

- 6.11.1 Conservator tank with a silica gel dehydrating breather, oil level gauge and drain cock.
- 6.11.2 The connecting pipe to the conservator shall extend at least 50mm into it. All pipe connections shall have flange joints.
- 6.11.3 Where specified in Appendix A, the conservator shall be provided with a sealed oil preservation bag:
 - 6.11.3.1 The bag shall not restrict the normal draining of the conservator or the flow of oil to the transformer.
 - 6.11.3.2 The bag shall allow for expansion without any increase in pressure or the causing of a partial vacuum over the specified temperature range.
- 6.11.4 The transformer shall be fitted with a weatherproof dial type thermometer graduated in °C for registering "top oil" temperature. The instrument shall be fitted with a resettable maximum temperature indicator.
- 6.11.5 Adjustable contacts shall be fitted to the thermometer. The contacts shall normally be set to operate at a temperature of 90°C. The trip contacts shall be liberally rated and adequate for closing at 110 volts, and at least 6 Amperes DC circuits. If not suitable, auxiliary relays may be provided.
- 6.11.6 A single—float Buchholz relay fitted with contacts for trip and alarm functions.
- 6.11.7 A thermal type overload relay to protect the transformer windings against sustained overloads. This relay shall have a load—temperature characteristic approximately the same as the transformer winding hot spot. Suitable means for compensation for variation of ambient air temperature shall be provided. Full details shall be submitted.
- 6.11.8 The relay shall be provided with trip contacts. The tenderer is to recommend the temperature setting for these contacts, which are normally set at 115 °C. The trip contacts shall be liberally rated and adequate for closing 110 volt, 6 Ampere DC circuits. If not suitable, auxiliary relays shall be provided.
- 6.11.9 A drain cock, two sampling cocks and thermometer pockets on the main tank.
- 6.11.10 A pipe entering the top of the main tank at the conservator end, with a cock easily accessible from ground level, and one cock on the opposite side of the main tank, at its lowest point, for connecting up to an oil filtering system. The cocks shall be screwed 50mm gas or metric equivalent female thread. If desired, the cock at the lowest point of the tank can be combined with the drain cock required in clause 6.11.9 by the addition of a suitable fitting having a 50mm gas or metric equivalent female thread.
- 6.11.11 A suitable pressure relief device fitted on the main tank if it is considered necessary by the manufacturer. The provision of the pressure relief device shall not affect the efficiency of the Buchholz relay in the event of a transformer fault.
- 6.11.12 Tenderers shall ensure that the pockets for the temperature indication are located in areas where the oil is freely circulating, thus avoiding the possibility of incorrect oil temperature measurement. Ambient temperatures can be very high in summer, and the location of the thermometer pockets must take solar radiation into account.
- 6.11.13 Where a marshalling box is fitted to the transformer the degree of protection shall be IP55 and corrosion protected.
- 6.11.14 The drawings of the connection of the marshalling box must be provided and be kept in a marshalling box.

7.0 CORROSION PROTECTION AND PAINTING

7.1 PREPARATION OF TRANSFORMER TANK

- 7.1.2 Rust and millscale shall be removed by shot blasting or acid cleaning. Welds which are not ground smooth shall be shot blasted or otherwise descaled and cleaned.

7.2 PAINTING

- 7.2.1 The outer surface of the transformer tank shall be painted Grey to the colour code G12 in accordance with SANS 1091. The conservator shall be painted white. The total paint thickness shall be at least 75 microns. For coastal or heavily polluted conditions it shall be at least 125 microns.
- 7.2.2 Internal surfaces of the conservator above oil level shall be cleaned and painted with one coat of oil resistant rust inhibiting etch primer. The radiators shall be hot dipped galvanized. It is recommended that galvanized radiators used at heavily polluted areas be painted.

8.0 TRANSFORMER OIL

- 8.1 Only unused mineral insulating oil shall be used.
- 8.2 The transformer oil shall meet with the requirements specified in SANS 555.
- 8.3 The oil shall be readily miscible with the oil supplied in conformity with the above mentioned specification by the major oil companies in South Africa, without detriment to the chemical, physical and electrical properties of the oil.
- 8.4 Transformer oil valve at the bottom shall be covered in accordance with drawing BBH7364.

9.0 RATING PLATE AND INSTRUCTION LABELS

- 9.1 A none—corrosive metal plate shall be fixed to each transformer tank (not cooling tubes), giving the following information:
- Maker's name.
 - Maker's serial No.
 - Transnet Freight Rail's serial No. (Left blank).
 - Rated output in MVA.
 - Frequency.
 - Secondary voltage and current.
 - Primary voltage and current.
 - Primary voltage tapings.
 - Transformer reactance (%).
 - Transformer impedance (%).
 - Vector diagram.
 - Diagram of connections.
 - Quantity of oil in litres.
 - Conservator fitted with bag.
 - Total mass of transformer inclusive of oil in kg.
 - Transport mass of transformer in kg.
 - Year of manufacture.
- 9.2 Drawings, instruction manuals and spares lists shall be supplied in accordance with Transnet Freight Rail's specification CEE.0224.

- 9.3 Three copies of each of the following drawings shall be submitted to the responsible project manager for approval within 7 days of the order being placed.
- 9.3.1 Dimension drawings showing external arrangements of transformer.
- 9.3.2 External wiring diagrams for the transformer.
- 9.3.3 Vector diagram and rating plate.

10.0 TESTING AND INSPECTIONS

- 10.1 Transnet reserves the right to be present at all tests (including type tests) and inspections called for in this specification.
- 10.2 The responsibility of arranging the tests called for in this specification rests with the successful tenderer/supplier.
- 10.3 A Transnet Freight Rail, Technology Management (Senior Electrical Engineer for substations) may request any additional tests deemed necessary to ensure compliance.
- 10.4 Type and routine tests shall be carried out on the transformers in accordance with the current editions of SANS 60076.
- 10.5 Type tests certificates are required for all new designs of any transformer.
- 10.6 If the supplier does not have type tests certificates from the OEM, they shall arrange for tests to be conducted at their own costs in the presence of Transnet Freight Rail – Quality Assurance team.
- 10.7 Transnet Freight Rail shall be provided with type test certificates and two copies of test sheets, which record the values of the routine tests, or special tests that are carried out on the transformers written in English.
- 10.8 Heat runs shall be carried out on the first transformers of a specific design.
- 10.9 The temperature rise of the transformer windings after thermal equilibrium and a steady temperature has been reached on continuous full load, shall not exceed 65°C. 2 x full load for 30 minutes the temperature rise of the windings shall not exceed 100°C.
- 10.10 The maximum temperature rise of the windings subsequent to the application of any of the following rectifier overloads after the constant continuous rated full load temperature has been attained are as follows:
- 3 x full load for 1 minute the temperature rise of the windings shall not exceed 70°C.
 - 3.5 x full load for 10 seconds the temperature rise of the windings shall not exceed 70°C.
- These values can be proved by calculations
- 10.11 The temperature rise of the windings at 100% and 200% shall be measured by the increase of resistance method. Standard correction for cooling during the measurement of resistance shall be applied.
- 10.12 Insulation resistance – Meggering:
- 10.12.1 A minimum resistance of 1000 MΩ is required between any winding and earth and between windings.
- 10.12.2 A minimum resistance of 500 MΩ is required between the core and earth or core clamps.
- 10.13 Sound level determination shall be done in accordance to SANS 60076 part 10.
- 10.14 Sweep frequency response analysis shall be done in accordance to SANS 60076 part 18.

11.0 COMMISSIONING

- 11.1 Commissioning shall only take place after all defects have been rectified to the satisfaction of the Maintenance Manager.

- 11.2 Commissioning shall include the energising of equipment from the primary isolator to the track feeder circuits. The contractor must prove the satisfactory operation of equipment under live conditions.
- 11.3 On completion of commissioning the contractor shall hand the equipment over to the Maintenance Manager.
- 11.4 Functional Acceptance by the Maintenance Manager 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.

12.0 QUALITY ASSURANCE

- 12.1 The successful tenderer shall maintain a Quality Management System (QMS) based on or certified to ISO 9001.

13.0 GUARANTEES AND DEFECTS

- 13.1 The successful tenderer shall accept liability for makers' defects, which may appear in design, material and workmanship.
- 13.2 The guarantee period for the transformer shall expire after a period of 12 months commencing on the date of commissioning of the equipment.
- 13.3 The successful tenderer shall provide all information regarding guarantees and warranties in writing.

END

14.0 APPENDIX A: SCHEDULE OF REQUIREMENTS

(To be completed by Transnet Representative)

1.0 Transformer required for: _____ substation/location

2.0 Nominal system voltage: _____ kV

3.0 Frequency: _____ Hz

TRANSFORMER DETAIL

1.0 Number of phases: Primary winding: _____ Secondary winding: _____

2.0 Secondary winding configuration: _____

3.0 Rated power: _____ MVA

4.0 Impedance %: _____

5.0 Primary voltage rating: _____ kV

6.0 Secondary voltage rating: _____ kV

7.0 Vector group: _____

CURRENT TRANSFORMERS

1.0 Built in current transformers required (Yes/No): _____.

2.0 Current transformer data:

	Protection	Metering
Ratio:	_____	_____
Class:	_____	_____
VA Rating	_____ VA	_____ VA

OFF CIRCUIT TAPPING SWITCH

1.0 No of positions:..... %Steps:.....

TRANSFORMER DIMENSIONS

1.0 Dimensions (if critical)

Length: _____ mm. Breadth: _____ mm. Height: _____ mm

SPECIAL REQUIREMENTS

1.0 Conservator to be fitted with oil preservation bag. Yes / No

2.0 Radiators galvanised. Yes / No

3.0 Transformer oil valve cover in high theft areas (BBH7364): Yes / No

Other special requirement:

.....

.....

Completed by:	
Capacity:	
Signature:	
Date:	

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15.0 APPENDIX B: TECHNICAL DATA SHEET

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

Supplier and Manufacturer's name:.....

TRANSFORMER DETAILS

- 15.1 Primary voltage rating:.....KV
- 15.2 Secondary voltage rating:.....KV
- 15.3 Rated power:.....MVA
- 15.4 Impedance:.....%
- 15.5 Off Circuit Tap Switch: No of positions:..... %Steps:.....
- 15.6 Vector group:.....

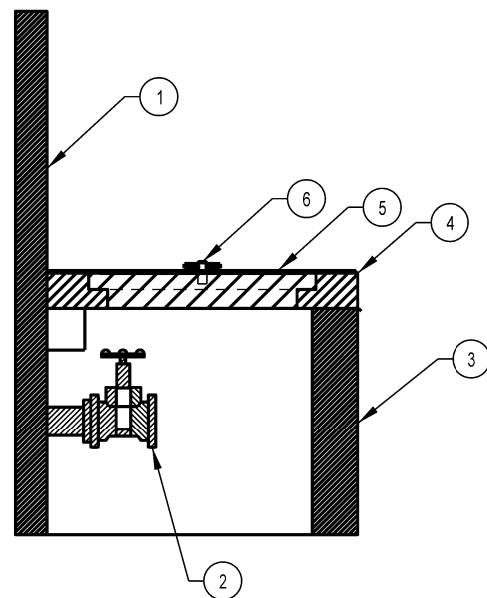
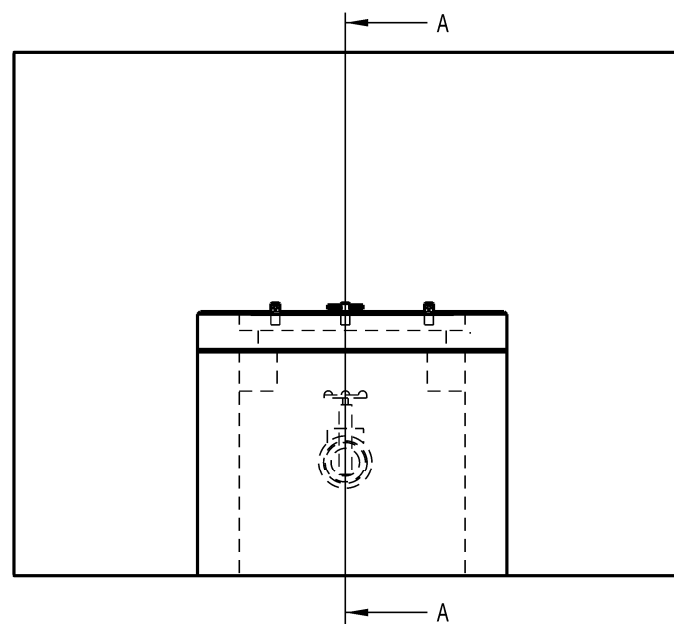
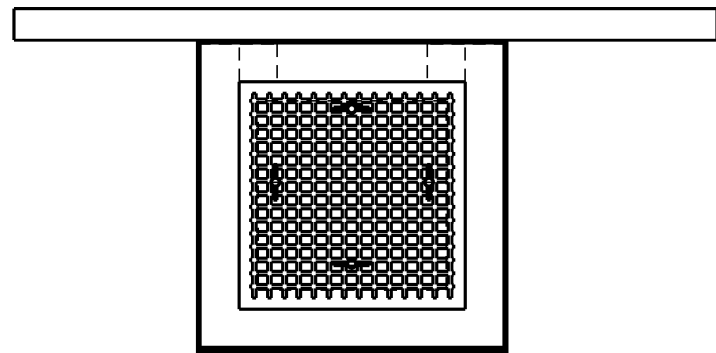
TANK AND TANK COVER

- 15.7 Free-breathing: Yes/No
- 15.8 Tank cover bolted to tank: Yes/No
- 15.9 Radiators galvanised: Yes/No
- 15.10 Method of Cooling:.....
- 15.11 Overall dimensions: Length.....mm. Breadth.....mm. Height.....mm
- 15.12 Winding material: HV.....LV.....
- 15.13 Mass of core and windings:.....Kg
- 15.14 Oil Capacity :.....(Litres)
- 15.15 Mass of transformer complete with oil:.....Kg
- 15.16 Adjustable axial coils provided: Yes/No
- 15.17 Type of breather and dehydrating agent:.....

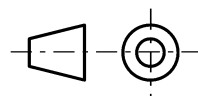
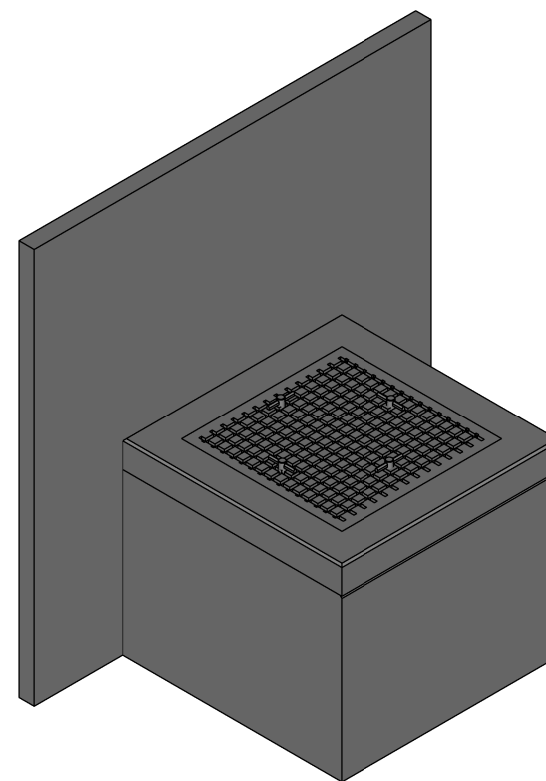
The following information refers to the transformer when connected on the principal tapping and appropriate reference temperature for the class of insulation used:

- 15.18 Iron loss (Watts):.....
- 15.19 Copper loss at full load:.....at.....°C
- 15.20 Total load losses (Watts):.....at.....°C
- 15.21 Impedance at full load (%Z):.....
- 15.22 Reactance (% X):.....
- 15.23 Regulation at full load at: 1.0 PF.....%, 0.8 PF..... % at.....°C
- 15.24 Efficiency at full load at: 1.0 PF..... %, 0.8 PF.....% at.....°C
- 15.25 Temperature rise at rated voltage and power of:
- Windings:.....°C Top oil:.....°C
- 15.26 Temperature rise at rated voltage and 2 times rated power of:
- Windings:.....°C

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SECTION A-A



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DIMENSIONS : mm
TOLERANCE : LIN± - ANG± -
MATERIAL : CONCRETE
VERSION INFO : NEW DRAWING

SCALE : 1 : 20

ITEM NO : -

DO REF : CDO/ E0600
CP REF : -
DRAWN : L.S. KEKANE
DESIGNED : -
CHECKED : X.R. BHOMELA

DATE: 30/07/2024

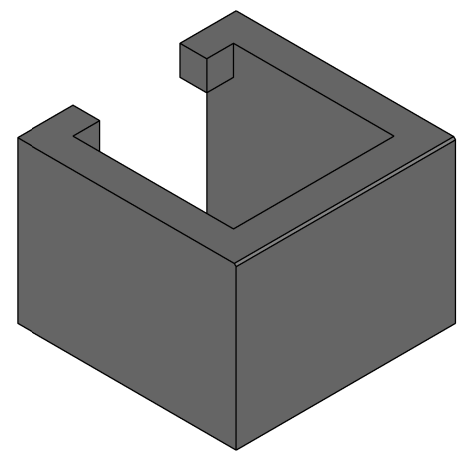
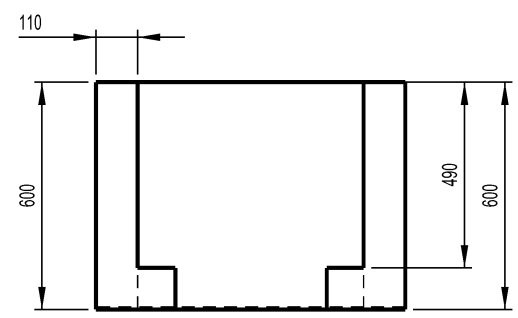
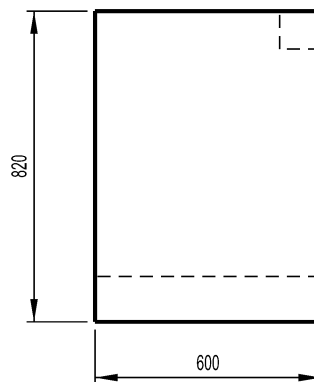
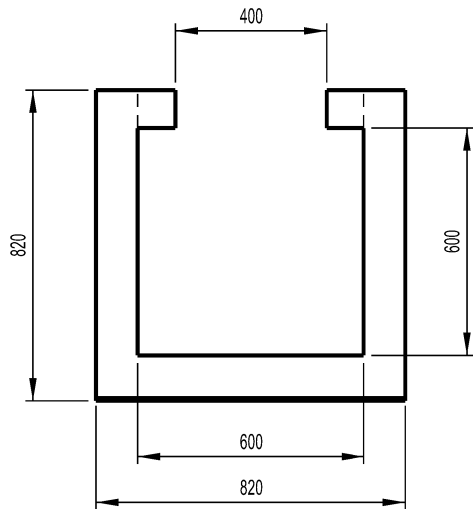
APPROVED: B. NGOBENI
AUTHORISED: T. CHETTY

6	FUNDILOCK	4	-	-
5	CONCRETE MANHOLE	1	-	BBH7274 SHT 4
4	SQUARE CONCRETE COVER	1	-	BBH7274 SHT 3
3	CONCRETE ENCLOSURE	1	-	BBH7274 SHT 2
2	TRANSFORMER OIL VALVE	1	-	-
1	TRANSFORMER TANK SIDE	1	-	-
ITEM NO	DESCRIPTION	QTY	STORES ITEM NO	DRAWING NO

TRANSFORMER OIL VALVE CONCRETE ENCLOSURE
(ASSEMBLY)



BBH7364
VERSION 1



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DIMENSIONS : mm
TOLERANCE : LIN $\pm$ ANG $\pm$
MATERIAL : CONCRETE
VERSION INFO : NEW DRAWING

SCALE : 1 : 20
ITEM NO : -

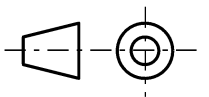
DO REF : CDO/ E0600
CP REF : -
DRAWN : L.S. KEKANE
DESIGNED : -
CHECKED : X.R. BHOMELA

DATE: 30/07/2024

APPROVED: B. NGOBENI

AUTHORISED: J. CHETTY

TRANSFORMER OIL VALVE CONCRETE ENCLOSURE

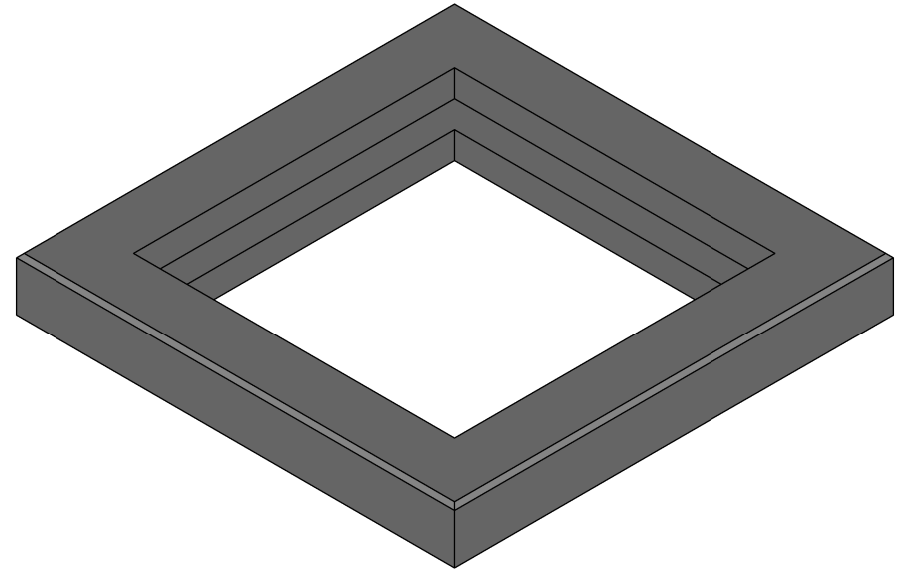
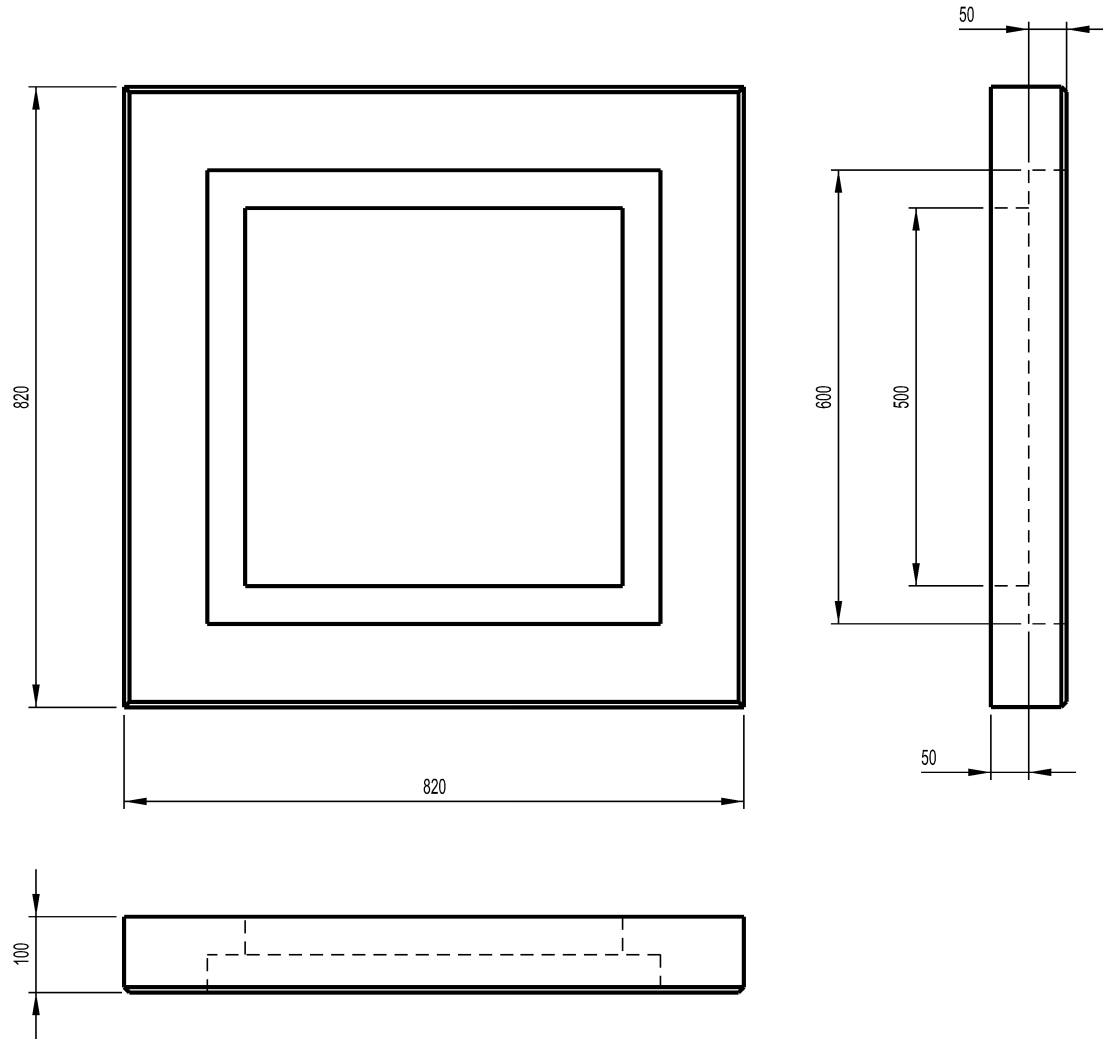


TRANSNET
freight rail

BBH7364 SHT 2 OF 4

VERSION 1

A4



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DIMENSIONS : mm
TOLERANCE : LIN $\pm$ ANG $\pm$
MATERIAL : CONCRETE
VERSION INFO : NEW DRAWING

SCALE : 1 : 10
ITEM NO : -

DO REF : CDO/ E0600
CP REF : -
DRAWN : L.S KEKANE
DESIGNED : -
CHECKED : X.R BHOMELA

DATE: 30/07/2024

APPROVED: B. NGOBENI

AUTHORISED: T. CHETTY

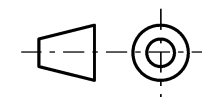
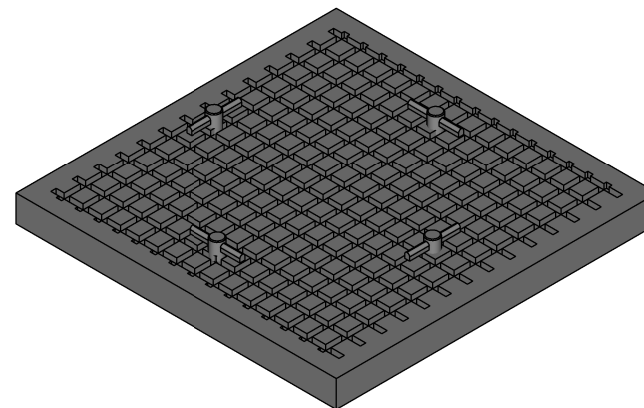
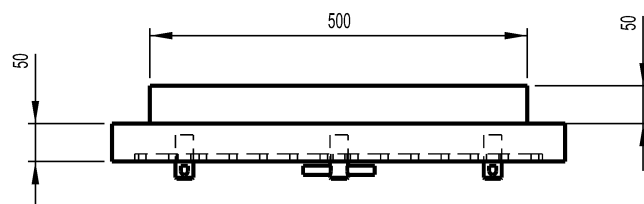
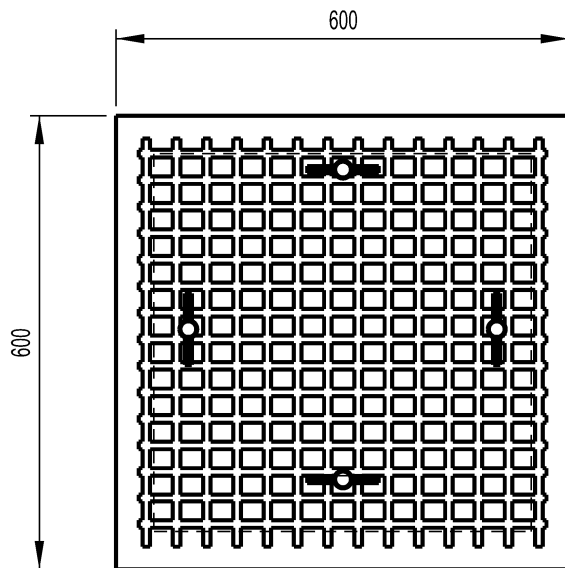
TRANSFORMER OIL VALVE
SQUARE CONCRETE COVER

TRANSNET
freight rail

BBH7364 SHT 3 OF 4

VERSION 1

A4



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DIMENSIONS : mm SCALE : 1 : 10
 TOLERANCE : LIN $\pm$ ANG $\pm$ ITEM NO : -
 MATERIAL : CONCRETE
 VERSION INFO : NEW DRAWING

DO REF : CDO/ E0600
 CP REF : -
 DRAWN : L.S. KEKANE
 DESIGNED : -
 CHECKED : X.R. BHOMELA

DATE: 30/07/2024

APPROVED: B. NGOBENI

AUTHORISED: T. CHETTY

TRANSFORMER OIL VALVE
 CONCRETE MANHOLE

TRANSNET
 freight rail

BBH7364 SHT 4 OF 4

VERSION 1

A4



A Division of Transnet SOC Limited

TECHNOLOGY MANAGEMENT

SPECIFICATION

PAINTING OF STEEL COMPONENTS OF ELECTRICAL EQUIPMENT

Author: Engineer
Technology Management

A.R. Netsianda

Handwritten signature of A.R. Netsianda in black ink, followed by a dotted line.

Approved: Senior Engineer
Technology Management

L. O. Borchard

Handwritten signature of L. O. Borchard in black ink, followed by a dotted line.

Authorised: Principal Engineer
Technology Management

S. E. Sibande

Handwritten signature of S. E. Sibande in black ink, followed by a dotted line.

Date: 28 July 2014

Circulation Restricted To:

Transnet Freight Rail

Transnet and Relevant Third Parties

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1.0 SCOPE

This specification covers Transnet Freight Rail requirements for surface preparation, paint systems and painting of steel components of electrical equipment.

2.0 REFERENCES AND GLOSSARY

2.1 The following publications/specifications (latest editions) are referred to herein:

SOUTH AFRICAN NATIONAL STANDARDS (SANS)

SANS 10064: The preparation of steel surfaces for coating.

SANS 1091: National colour standards.

SANS 1274: Coatings applied by powder coating process.

2.2 **TRADE NAMES:**

OptiDegreaser

OptiPrimeAqua

Noxyde/OptiRustBusta

2.3 **CLASSIFICATION OF LEVEL OF SURFACE DEGRADATION:**

RE1-0.05% of surface rusted

RE2-0.5% of surface rusted

RE3-1.0% of surface rusted

RE4-3.0% of surface rusted

RE5-8.0% of surface rusted

3.0 METHOD OF TENDERING

3.1 Tenderers shall indicate clause-by-clause compliance with this 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. This document can be used by tenderers to elaborate on their response to a clause.

3.2 A statement of non-compliance shall be motivated by the tenderer.

3.3 Failure to comply with clauses 3.1 and 3.2 could preclude a tender from consideration.

4.0 SERVICE CONDITIONS**4.1 ENVIRONMENTAL CONDITIONS**

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

Altitude: 0 - 1800 m above sea level

Relative humidity: 10% to 90%

Ambient temperature: -10° C to +55° C

Lightning conditions: 20 ground flashes/km² per annum

Pollution: Heavily salt laden with industrial pollutants including diesel-electric locomotive emissions

5.0 SURFACE PREPARATION**5.1 NON-GALVANISED STEELWORK****5.1.1 NEW STEELWORK**

SURFACE PREPARATION (Read: NOTES and SPECIAL INSTRUCTIONS)	PRODUCT REQUIREMENTS AND APPLICATION
---	--------------------------------------

	(see variations for specific environmental conditions)
➤ Sandblast to a standard of Sa2 to remove mill scale and/or flash rust ➤ Remove dust with <u>clean</u> compressed air (check air for oil contamination)	➤ Apply a stripe coat to edges, bolts, crevices, nuts and rivets. ➤ Apply 300µm wet coat of Noxyde/OptiRustBusta to the entire structure with contrasting colour. ➤ Apply a final 300µm wet coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m²

5.1.2 PREVIOUSLY COATED STEELWORK

5.1.2.1 COATING START FAILING TO A LEVEL RE 2

➤ test for adhesion (refer to supplier) ➤ degrease thoroughly with OptiDegreaser ➤ hydro blast complete substrate using a rotating nozzle and minimum 250 bar at the nozzle	➤ Apply a stripe to edges, bolts, nuts, rivets and fill crevices. ➤ Apply one coat of Noxyde/OptiRustBusta to entire substrate in a contrasting colour.
---	--

5.1.2.2 COATING FAILURE AND RUSTING TO A LEVEL OF RE 4

➤ Remove all visible traces of rust by mechanical means ST2 (chip/grind/sand) OR shotblasting/spotblasting ➤ degrease thoroughly with OptiDegreaser ➤ hydro blast complete substrate using a rotating nozzle and minimum 250 bar at the nozzle	➤ Apply 300µm wet coat of Noxyde/OptiRustBusta to the de-rusted areas, edges, bolts, nuts and rivets and fill crevices. ➤ Apply one coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m² to entire substrate using a contrasting colour.
--	---

5.1.2.3 BITUMEN COATED

➤ Remove all visible rust and loosely adhering bitumen coating by means of chipping and scrapping (ST2) ➤ degrease thoroughly with OptiDegreaser ➤ hydro blast complete substrate using a rotating nozzle and minimum 250 bar at the nozzle	➤ Apply 300µm wet coat of Noxyde/OptiRustBusta to the de-rusted areas, edges, bolts, nuts and rivets and fill crevices. ➤ Apply one coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m² to entire substrate using a contrasting colour.
---	---

5.1.2.4 BADLY RUSTED STEEL WITH PITTING AND CRUST FORMATION TO RE5

➤ Degrease thoroughly with OptiDegreaser ➤ hydro blast complete substrate using a rotating nozzle and minimum 250 bar at the nozzle ➤ shotblast/sandblast complete substrate giving particular attention to bolts nuts rivets and crevices Sa2 ➤ De-dust	➤ Apply a first 300µm wet of Noxyde/OptiRustBusta to entire substrate to the contrasting colour. ➤ Apply a stripe coat to edges, bolts, nuts, rivets and fill crevices using a contrasting colour. ➤ Apply a final coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m².
---	--

5.2 GALVANISED STEELWORK

5.2.1 NEW AND WEATHERED GALVANISING WITH A SMOOTH GLOSSY FINISH

➤ Degrease thoroughly with OptiDegreaser ➤ rinse down with copious quantities of potable water	➤ Apply one thin coat of OptiPrime/Aqua (100 micron wet/35 micron dry) ➤ Apply a stripe coat of Noxyde/OptiRustBusta to edges, bolts, nuts, rivets and fill crevices. ➤ Apply two coats of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m² per coat to the complete substrate using contrasting colors.
---	--

5.2.2 WEATHERED GALVANISING

5.2.2.1 White rust (Zinc oxide)

➤ Degrease thoroughly with OptiDegreaser – ensure that all traces of “white rust” are removed ➤ rinse down with copious quantities of potable water	➤ Apply one 300µm wet coat of Noxyde/OptiRustBusta ➤ Apply a stripe coat of Noxyde/OptiRustBusta to edges, bolts, nuts, rivets and fill crevices. ➤ Apply a final coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m² per coat to the complete substrate using contrasting color.
--	--

5.2.2.2 Combination of red rust (Iron oxide) and white rust (Zinc oxide)

➤ Remove all traces of red rust ➤ Degrease thoroughly with OptiDegreaser – ensure that all traces of “white rust” are removed ➤ rinse down with copious quantities of potable water	➤ Apply 300µm wet coat of Noxyde/OptiRustBusta to the de-rusted areas, edges, bolts, nuts and rivets and fill crevices. ➤ Apply a final coat of Noxyde/OptiRustBusta at a consumption rate of minimum 400g/m² per coat to the complete substrate using contrasting color.
---	---

NOTES AND SPECIAL INSTRUCTIONS:

1 Sand or Grit-blasting: a) Always use clean, non-recycled grit b) Always use fine or extra fine grit c) Always use oil free air d) Always use a moisture trap e) Dedust	2 Degreasing: a) Use only OptiDegreaser b) Dilute according to instructions – see data sheet c) Always follow up with hydro-blasting to remove all chemical residues	3 Hydro-blasting: a) Always use clean portable water b) Use a rotating nozzle and ensure a pressure of minimum 250 bar at the nozzle c) Remove ALL traces of dirt and any form of salt contamination and residues of the degreasing agent d) Concentrate in crevices and other similar “collection” areas
---	---	---

6.0 PRODUCT APPLICATION

6.1 METHOD OF APPLICATION

OptiPrimeAqua	Noxyde/OptiRustBusta
Temperature-Min 5 °C Relative humidity-Max 80% R.H. ➤ Apply by brush, lacquer roller or airless spray using a no.11 nozzle ➤ Apply one thin coat only – 100 micron wet=35 micron dry (DFT) ➤ Small parts can be dipped – dilute with 10% water for dipping	Temperature-Min 5 °C Relative humidity-Max 80% R.H. ➤ Apply by brush, roller or airless spray ➤ For airless spray applications refer to “data sheet of Noxyde/OptiRustBusta”

6.2 DRYING TIME AND OVERCOAT PERIODS

➤ Do not overcoat within 12 hours ➤ Wash down with clean portable water (100 bar) before over coating to remove dust or any other form of intermediate contamination	➤ Drying time is dependent on ambient conditions and can vary from a few minutes (in dry windy conditions) to a few hours (in humid shaded conditions) ➤ Over coat as soon as possible to avoid contamination of previous coat ➤ Wash down with clean portable water (100-150 bar) before over coating if danger of contamination exists or it left more than 4 hours before over coating
---	---

6.3 CURING TIME

n/a	➤ 7 – 14 days to “full cure”. During this period the product is prone to mechanical damage – the longer time it is allowed to cure, the tougher it becomes
-----	--

6.4 DRY FILM THICKNESS (DFT) READINGS

35 micron	➤ Severe coastal & marine environment (in the spray zone) – TWO stripe coats & overall minimum DFT of 400 micron ➤ Normal coastal environment (15 km from coastal line) - a single stripe of coat & overall minimum DFT of 400 micron ➤ Non-coastal high rainfall areas, in the immediate vicinities of rivers, dams, lakes, etc., and in industrial areas with high levels of chemical pollution – a single stripe of coat & overall minimum DFT of 400 micron ➤ Dry non aggressive environments - a single stripe of coat & overall minimum DFT of 250 micron NOTE: DFT readings can only be taken after 72 hours
-----------	---

- 6.5 Notwithstanding the above requirements, all surfaces shall be cleaned according to the appropriate method described in SANS 10064 for the particular surface to be cleaned, the contamination to be removed and the primer to be applied.
- 6.6 Blast cleaning of components shall be in accordance with clause 4.5 of SANS 10064 to a degree of cleanliness of at least Sa2 for inland exposure components and Sa2 1/2 for coastal exposure components. See table 1 of SANS 10064 for the appropriate profile.
- 6.7 Sheet metal components that cannot be blast cleaned shall be cleaned by pickling according to clause 4 of SANS 10064.
- 6.8 Components that will be powder coated shall be cleaned and prepared by the surface conversion process according to clause 5 of SANS 10064 to a medium weight classification of table 2 of that specification.
- 6.9 Oil and accumulated dirt on steel components where no rusting is present shall be removed according to clause 3 of SANS 10064.

7.0 PAINT SYSTEM

A choice of two systems is available to suit the contractors' equipment.

7.1 Water based paint system

1st coat: OptiPrimeAqua

Wet film thickness: 100 micrometers. Dry film thickness: 35 micrometers.

2nd coat: Noxyde/OptiRustBusta

Dry film thickness: 165 micrometers @ 400g/m².

3rd coat: Noxyde/OptiRustBusta

Dry film thickness: 165 micrometers @ 400g/m².

7.1.1 Paint application

- 7.1.1.1 The primer and paint is normally applied by brush at supply viscosity (no reducer required)
- 7.1.1.2 The practical spreading rate of the primer and paint is the function of the ambient temperature, wind velocity and application technique, but will generally fall in the range of 400g/m² in low to mild corrosive areas, and 500g/m² in severely corrosive areas.
- 7.1.1.3 Once the applied coat of primer/paint is touch dry, the next coat of paint may be applied.
- 7.1.1.4 If painted steelwork is to be bolted onto structures, it is imperative that the paint has been allowed to hard dry before the steelwork is bolted onto structures. This is to prevent the soft paint being damaged when tightening the bolts securing the steelwork to the structures.

7.2 Powder coating system

The powder-coating process shall be in accordance with SABS 1274 type 4: Corrosion-resistant coatings for interior use and using the thermosetting type high gloss coatings.

8.0 COATINGS AND WORKMANSHIP

- 8.1 All specified coatings shall be applied according to relevant specification and the manufacturer's instructions shall be followed.
- 8.2 coatings shall not be applied under conditions that may be detrimental to the effectiveness of the coating or the appearance of the painted surface.
- 8.3 When examined visually, the finished product shall have a uniform appearance and shall show no sign of damage. Damaged areas shall be repaired coat for coat to obtain the desired finish.

9.0 SUBSTITUTION

- 9.1 This specification replaces specification CEE.045 of 2002/1.
- 9.2 All clauses have been revised to suit latest requirements.

END



A Division of Transnet SOC Limited

TECHNOLOGY MANAGEMENT

SPECIFICATION

HOT DIPPED GALVANISING AND PAINTING OF ELECTRIFICATION STEELWORK

Author: Engineer
Technology Management

A.R. Netsianda

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Approved: Senior Engineer
Technology Management

L. O. Borchard

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

Authorised: Principal Engineer
Technology Management

S. E. Sibande

Handwritten signature of S. E. Sibande on a dotted line.

Date: 18 August 2014

Circulation Restricted To:

Transnet Freight Rail

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1.0 SCOPE

- 1.1 This specification covers Transnet Freight Rail's requirements for the hot dipped galvanising and painting of electrification steelwork.
- 1.2 The extent of work includes galvanising and painting of steelwork consisting of universal column masts with welded on bases up to 14 m in length and small part of steelwork consisting of channel, angle and flat iron fittings, welded assemblies and tubular cantilevers.
- 1.3 Appendix A depicts the scheduled of requirements and quantities.

2.0 REFERENCES AND GLOSSARY

- 2.1 Unless otherwise specified all materials used and equipment developed and supplied shall comply with the current equivalent edition of the relevant SANS, IEC or Transnet Freight Rail publications where applicable.
- 2.2 The following publications/specifications (latest editions) are referred to herein:
- SANS 32: Internal and/or external protective coatings for steel tubes – specification for hot dipped galvanized coatings applied in automatic plants.
- SANS 1091: National colour standards.

3.0 METHOD OF TENDERING

- 3.1 Tenderers shall indicate clause-by-clause compliance with this 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. This document can be used by tenderers to elaborate on their response to a clause.
- 3.2 A statement of non-compliance shall be motivated by the tenderer.
- 3.4 Failure to comply with clauses 3.1 and 3.2 could preclude a tender from consideration.

4.0 SERVICE CONDITIONS**4.1 ENVIRONMENTAL CONDITIONS**

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

Altitude:	0 - 1800 m above sea level
Relative humidity:	10% to 90%
Ambient temperature:	-10° C to +55° C
Lightning conditions:	20 ground flashes/km ² per annum
Pollution:	Heavily salt laden with industrial pollutants including diesel-electric locomotive emissions
Radiation:	The device shall be used in environments exposing it to UV radiation

5.0 GALVANISING OF STEELWORK

- 5.1 The steelwork must be cleaned and hot dip galvanized to SANS 32 except for the following:
- 5.1.1 No ammonium chloride salts shall be used on withdrawal from molten zinc.
- 5.2 After galvanising no passivation must take place. Quenching may be done with clean water. No sodium dichromate shall be used.
- 5.3 All surfaces contamination of zinc oxide (zinc ash) shall be removed by means of brushing.

6.0 PRIMER COATING

- 6.1 The hot galvanising shall be followed as soon as is practical by the painting procedures as specified hereunder :
- 6.1.1 Prior to painting, all steelwork shall be cleaned with a solvent cleaner and washed down with clean water to remove all traces of solvent. The solvent cleaner used must be compatible with zinc (similar to Galv clean/OptiDegreaser).
- 6.1.2 The primer coating, a two-component polyamide cured epoxy primer eg: OptiGuard universal EP primer or equivalent shall be applied to a dry film thickness of 75 microns. Application shall be in accordance with the manufactures instruction.
- 6.1.3 The primer coating shall be allowed to cure for a minimum period of 48 hours before handling to facilitate coating of the surfaces as well as application of the intermediate coat.
- 6.1.4 A coat of two-component high-build micaceous iron oxide pigment polyamide cured re-coatable epoxy eg: OptiGuard universal M10 or equivalent shall be applied to a wet film thickness of 125-275 microns. Application shall be in accordance with manufacturers.
- 6.1.5 A further 48 hours period must be allowed for curing of primer coatings before handling the steel work for transportation purposes.
- 6.1.6 Alternatively the following single pack water based system may be used:
- 6.1.6.1 Apply one coat of OptiPrimerAqua or equivalent at a 100 micrometer wet film thickness. Dry Film Thickness: 35 micrometers.
- 6.1.6.2 Apply an intermediate coat of OptiRustBusta or equivalent at a 175 micrometer Dry film thickness ($400\text{g}/\text{m}^2$).
- 6.1.6.3 Apply a film topcoat of OptiRustBusta or equivalent at 175 micrometer Dry Film Thickness ($400\text{g}/\text{m}^2$). The colour as per 7.1.2.1 shall be French grey (SANS 1091: code H30). The colour as per 7.1.2.2 shall be medium sea grey (SANS 1091: code G24).
- 6.2 All care must be exercised during handling to prevent damage of the painted surfaces.
- 6.3 Loading of steelwork must be done in such a way to limit damage of surfaces to minimum during transit.
- 6.4 Only non-metallic slings should be used, preferably nylon or cotton material.
- 6.5 Transnet Freight Rail reserves the right to inspect the premises where this work is carried out at any time during the duration of galvanising and primer painting.
- 6.6 Transnet Freight Rail shall inspect all steelwork at the tenderers premises before dispatch of any such steelwork.

7.0 TOP COATING

- 7.1 The topcoat shall be applied directly after erection of the steelwork in accordance with procedures hereunder:.
- 7.1.1 Damage of the primed surfaces shall be repaired, after erection, by the application of one or more coats of two component high-build micaceous iron oxide pigmented polyamide cured re-coatable epoxy coating e.g.: OptiGuard universal M10 or equivalent until the film thickness is obtained.
- 7.1.2 A topcoat of two-component aliphatic isocyanate cured acrylic finish e.g.: OptiThane 421 or equivalent shall be applied in according to the paint manufacturer's instructions to a minimum dry film thickness of 50 microns. The topcoat shall be determined by whether steelwork is for Transnet Freight Rail or PRASA.
- 7.1.2.1 For Transnet Freight Rail the colour shall be Frenchy grey (SANS 1091:code H30).
- 7.1.2.2 For PRASA the colour shall be medium sea grey (SANS 1091:code G24).

8.0 QUALITY

- 8.1 The tender shall submit a copy of Quality Plan to be implemented during the process. The quality shall include stages for preparation of metalwork prior to galvanisation, for galvanising and for painting process.
- 8.2 The Quality Plan shall furthermore make provision for the customer's requirements for inspection and acceptance points and witnessing of tests to establish whether requirements of SANS 32 in so far as preparation of steel work prior to galvanising, galvanising and painting requirements as per this specification are complied with.

9.0 SUBSTITUTION

- 9.1 This specification replaces specification CEE.0183-issue 2002.
- 9.2 All clauses have been revised to suit latest requirements.

END

APPENDIX A:**SCHEDULE OF REQUIREMENTS AND QUANTITIES**

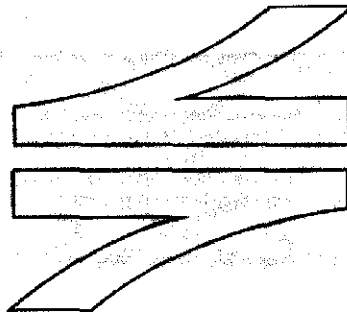
(To be filled in by Transnet Freight Rail representative)

1.0

END

For Transnet Freight Rail: _____

Grade: _____

**SPOORNET**

A division of Transnet limited

TECHNICAL
CONFIGURATION MANAGEMENT
SPECIFICATION CONTROL PAGE

**DRAWINGS, CATALOGUES, INSTRUCTION MANUALS
AND SPARES LISTS FOR ELECTRICAL EQUIPMENT
SUPPLIED UNDER CONTRACT**

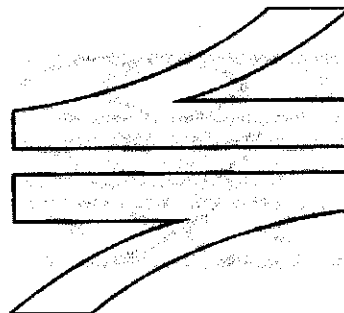
Statement of authorisation:

There is no SABS specification available for similar material / equipment and as far as can be ascertained no other specification / standard suitably covers Spoornet requirements. The specification has been compiled in a manner which shall favour / encourage local manufacture of material / equipment to a maximum degree.

Author:	Chief Engineering Technician Documentation management	J C van Tonder
Approved:	Senior Engineer Railway Engineering	L O Borchard
Authorised:	Senior Technologist Configuration Management	J H Hancock

Date: January 2002

This page is for control purposes only and shall not be issued with the specification.



SPOORNET

A division of Transnet limited

**TECHNICAL
CONFIGURATION MANAGEMENT
SPECIFICATION**

**DRAWINGS, CATALOGUES, INSTRUCTION MANUALS
AND SPARES LISTS FOR ELECTRICAL EQUIPMENT
SUPPLIED UNDER CONTRACT**

Circulation restricted to:

Technical

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1.0 SCOPE

This specification covers Spoornet's requirements for drawings, catalogues, and instruction manuals and spares lists of electrical equipment supplied under contract.

2.0 DEFINITIONS

- 2.1 "Design drawings for approval" defines those drawings, which have to be submitted to Spoornet for approval prior to manufacture of equipment.
- 2.2 "Installation drawings" defines those drawings, which are required for the installation of the equipment.
- 2.3 "As Built drawings" defines those drawings, which reflect all the various approved designs, layouts, etc., of the actual final accepted state of the equipment.

3.0 STANDARDS AND SPECIFICATIONS

- 3.1 The following standards and specifications are referred to:

CEE.0012: Method of Tendering

SABS 0111: Engineering Drawings.

BS 308: Engineering Drawing Practice.

NRS 002: Graphical Symbols for Electrical Diagrams.

IEC 617: Graphical Symbols for Diagrams.

ASHRAE: American Society of Heating Refrigeration Air-conditioning Engineers Standard.

- 3.1.1 The following Spoornet standard (Electrical) symbol drawings are listed for reference:

CEE-PA-19: Symbols for Electrical Installations.

CEE-PA-42: Symbols for Distribution and Transmission Layout.

CEE-PA-101: Symbols for Air-conditioning installations.

CEE-TA-62: Standard Electrification Symbols.

- 3.2 Tenderers and contractors shall ensure that they work to the latest issues and amendments of the above standards and specifications.

4.0 APPENDIX

The following appendix forms an integral part of this specification:

Appendix 1: SCHEDULE OF REQUIREMENTS

This appendix calls for specific requirements applicable to the contract.

5.0 METHOD OF TENDERING

- 5.1 Tendering shall be in accordance with Spoornet (Electrical) specification CEE.0012.

5.2 Tenderers shall indicate clause by clause compliance or non-compliance with the specification. This shall take the form of a separate document listing all the specification clause numbers indicating the individual statement of compliance or non-compliance.

5.3 The Schedule of Requirements, Quantities and Prices, Appendix 1 to this specification shall be fully completed by Tenderers. Failure to submit a fully completed sheet may preclude a tender from further consideration.

6.0 LANGUAGE AND UNITS OF MEASURE

Drawings and documents shall be prepared in English and the ISO unit of measure. Other offers will be considered on merit.

7.0 DRAWINGS

7.1 Drawings shall be generated in either Microstation or any CAD format, which can be read by Microstation, but offers on other media will be considered on merit.

7.2 Drawings shall be prepared in such a manner that they fully comply with the requirements of SABS 0111 and/or BS 308.

7.3 Symbols, with their explanations used on the drawings but not covered by the NRS 002, IEC 617, ASHRAE or Spoornet's symbol drawings shall be furnished i.e. then included on the drawing or supplied on a separate symbol list which is to be cross referenced to the drawing.

7.4 Where the publications referred to in clause 3.1 are at variance, the practice detailed in SABS 0111 shall take preference.

7.5 Drawings shall be prepared for ISO; "A" series size sheets and shall not be greater than A1 size except as detailed below.

7.5.1 Where under exceptional circumstances the nature of the work is such that a size A1 is impractical, then the AO size may be used.

7.5.2 Long drawings, where necessary for wiring/circuit diagrams, cable run diagrams, track layouts, etc., shall be prepared with widths equal to the widths of the "A" series sheets as required, but preferably not exceeding the length of an A0 sheet.

7.6 All interrelated drawings shall be clearly and adequately cross-referenced.

7.7 The Contractor hereby grants to Transnet a non-exclusive licence, in accordance with the provisions of section 22 of the Copyright Act, 1978;

7.7.1 to copy any plan, diagram, drawing, specification, bill of quantities, design calculation or other similar document made by the Contractor, other than under the direction or control of Transnet, in connection with the extent of work;

7.7.2 to make free and unrestricted use thereof for its own purposes;

7.7.3 to provide copies thereof to consultants to Transnet to be used by them for the purpose of such consultations and consulting services and-

7.7.4 to provide other parties with copies thereof for the purpose of tenders invited by Transnet.

-
- 7.7.5 Such non-exclusive licence shall apply *mutatis mutandis* to any plan, diagram, drawing, specification, bill and/or schedule of quantities, design calculation or other similar document made, other than under the direction or control of Transnet, by any principal or sub-contractor of the Contractor. The provisions of this clause shall not apply to documents made, in the case of plant or equipment to be supplied, for the manufacturing process of such equipment, but only to the equipment supplied itself.
- 7.7.6 Transnet shall make no separate or extra payment in respect of any non-exclusive licence granted in terms hereof.
- 8.0 INFORMATION REQUIRED ON DRAWINGS**
- 8.1 A title block shall be provided in the lower right hand corner of each drawing, indicating:
- 8.1.1 Descriptive title.
 - 8.1.2 Contractor's drawing number.
 - 8.1.3 Space for Spoornet's drawing number (as requested in clause 7.7).
 - 8.1.4 Place of installation.
 - 8.1.5 Contract / Order number.
 - 8.1.6 Contractor's name.
 - 8.1.7 Signature or name of approving officer (as requested in clause 8.0).
 - 8.1.8 Approval date.
 - 8.1.9 Issue number.
 - 8.1.10 Projection symbol for multi-view drawings, if required.
- 8.2 Successful Tenderers can obtain a copy of Spoornet's standard title block (Microstation or DXF formats) free of charge by contacting the Documentation Management section.
- 8.3 On wiring and circuit diagrams, the following shall be specified:
- 8.3.1 Cable and wire sizes.
 - 8.3.2 Values of resistance.
 - 8.3.3 Breaking capacity of switches.
 - 8.3.4 Ratings of equipment.
- 8.4 On each assembly or sub-assembly drawing, the following shall be given:
- 8.4.1 Description of item.
 - 8.4.2 Quantity required for assembly depicted.
 - 8.4.3 Material manufactured from.
 - 8.4.4 The classification of the material according to the relevant SABS specification or other specifications referred to herein.
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- 8.4.5 The class or process of finish and/or coating.
 - 8.4.6 Where special parts are specified, the name of the manufacturer, the size, capacity and the name or catalogue number of each part shall be furnished.
 - 8.4.7 The mass of finished item depicted on the drawing.
 - 8.4.8 Dimensions from a proper reference surface.
 - 8.4.9 Dimension tolerances.
 - 8.5 *On electrification drawings, the following shall be specified:*
 - 8.5.1 Kilometre distances.
 - 8.5.1.1 Kilometre distances of all new and existing masts measured from the preceding kilometre post.
 - 8.5.2 Civil
 - 8.5.2.1 The following civil information shall be shown:
 - 8.5.2.1.1 Bridges.
 - 8.5.2.1.2 Tunnels.
 - 8.5.2.1.3 Pipes.
 - 8.5.2.1.4 *Culverts.*
 - 8.5.2.1.5 Subways.
 - 8.5.2.1.6 Manholes.
 - 8.5.2.1.7 Off track platforms.
 - 8.5.2.1.8 Water-furrows along track.
 - 8.5.2.1.9 Service roads that may influence electrification.
 - 8.5.2.1.10 Level crossings.
 - 8.5.2.1.11 All banks and cuttings.
 - 8.5.2.1.12 Retaining walls.
 - 8.5.2.1.13 Gradient markers and gradients.
 - 8.5.2.1.14 Boundary fences (where relevant).
 - 8.5.2.1.15 The beginning and ending of transition and circular curves and the radius.
 - 8.5.2.3 On all station plans the beginning and ending of the platforms to be indicated, as well as all buildings and structures on the platform which may effect electrification. All secondary platforms/structures/obstacles, which may effect electrification, must also be shown.
 - 8.5.2.4 All points with stock rail joints, intersection of centre lines and all ends of point positions to be shown, as well as the type of point, e.g. 1:9 LH (left hand).
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- 8.5.3 Electrical
 - 8.5.3.1 The following electrical information shall be shown:
 - 8.5.3.1.1 New and existing masts and structures with appropriate sizes.
 - 8.5.3.1.2 Span lengths.
 - 8.5.3.1.3 Tension lengths.
 - 8.5.3.1.4 Mast to track centres.
 - 8.5.3.1.5 Tension type (spring or weight).
 - 8.5.3.1.6 Transmission lines, Transnet and Eskom (Showing crossing heights above rail level).
 - 8.5.3.1.7 Telkom lines.
 - 8.5.3.1.8 Height gauges.
 - 8.5.3.1.9 Power and Lighting kiosks.
 - 8.5.3.1.10 Electrical cables nearer than 3,2m from track centre, as well as cables crossing the track.
 - 8.5.3.2 Wire profiles showing clearances/wire heights for all transmission and telecommunication lines that cross the tracks shall be shown on the drawing at the point of crossing, in either tabular or graphic format.
 - 8.5.3.3 *Wire profile for all bridges and tunnels shall be shown on separate drawings.*
 - 8.5.3.4 Important information that shall be noted are:
 - 8.5.3.4.1 Basic span.
 - 8.5.3.4.2 Ruling contact wire height.
 - 8.5.3.4.3 Reference to bonding drawings.
 - 8.5.3.4.4 Wire sizes.
 - 8.5.3.4.5 Types of structures and foundations.
 - 8.5.3.4.6 Tables for traction and transmission line (Showing wire heights).
 - 8.5.3.4.7 Dropper chart.
 - 8.5.3.4.8 Overlaps.
 - 8.5.3.4.9 Jumpers.
 - 8.5.3.4.10 Staggering.
 - 8.5.3.4.11 References to switching diagram drawings.
 - 8.5.3.4.12 Any other relevant information.
 - 8.5.4 Signal.
 - 8.5.4.1 The following signal information shall be shown:
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- 8.5.4.1.1 Signal gantries (showing direction of aim).
- 8.5.4.1.2 Independent signals (showing direction of aim).
- 8.5.4.1.3 Signal kiosks.
- 8.5.4.1.4 Telephones.
- 8.5.4.1.5 Signal relay rooms.
- 8.5.4.1.6 Radio repeater rooms.
- 8.5.4.1.7 Signal cables nearer than 3,2m from track centre, as well as cables crossing the track.
- 8.5.5 Electrification information must be clearly indicated on drawings (see also drg no CEE-TA-62 for Standard Electrification Symbols).
- 8.7 The successful tenderer shall obtain Spoorinet's drawing numbers from the Documentation Management section of Spoorinet well in advance in writing, wherein details of all relevant drawings, i.e. titles and makers numbers are quoted. Against this information Spoorinet will allocate its own numbers for inclusion by the Contractor on the original drawings.

9.0 CERTIFICATION OF DRAWINGS

The contractor against a date to certify that the drawing has been checked and is correct in all respects shall approve each drawing. This also includes changes.

10.0 CHANGES TO DRAWINGS

Any drawing returned to the Contractor for changes shall be re-submitted to Spoorinet within 21 days with the appropriate changes endorsed thereon.

11.0 SUBMISSION OF TENDER DRAWINGS

The Tenderer shall submit drawings of all major items of equipment with the tender. The drawings shall be sufficiently detailed (e.g. safety factors) to enable suitability of the design to be judged and to enable Spoorinet to prepare a reasonably accurate estimate of the cost of maintenance.

12.0 DRAWINGS TO BE SUPPLIED BY SUCCESSFUL TENDERER

- 12.1 Two prints of each design drawing for approval to be submitted prior to commencement of work or manufacture of any equipment to Spoorinet. This includes drawings of general layouts, cable routes, schematic diagrams, foundations, equipment etc.
- 12.2 Two prints of each installation and/or erection drawing to be submitted to Spoorinet. This includes drawings of modular steel buildings, structures etc. and shall be delivered at the same time the delivery of the equipment commences.
- 12.3 The successful tenderer shall supply one complete set of approved (signed) "As Built" working drawings as well as the electronic files thereof. Drawings shall be fully dimensioned, fully detailed, clear and neat. The set shall comprise all electrical and mechanical drawings considered necessary by Spoorinet and shall include drawings of all renewable parts or items. "As Built" drawings of all enclosures, structures and foundations shall also be supplied.

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- 12.4 All relevant "As Built" drawings required shall be delivered to SpoorNet within 90 days of completion of the installation and delivery of equipment.
- 12.5 Until all relevant drawings called for in the contract are delivered, the contract will be considered incomplete.
- 13.0 CATALOGUES**
- 13.1 Tenderers shall submit a separate quotation for the supply of the itemised part catalogues when specified in the Schedule of Requirements. The size shall be A4 (297 mm x 210 mm). Consideration shall be given on merit of the supply of these catalogues electronically (PDF format).
- 13.2 The information contained in the catalogues shall be classified into convenient sectors and be indexed. Thumb tabs shall be provided for quick reference to sections. All apparatus shall be illustrated by means of photographs or detailed sketches on which both the parts and the catalogue numbers of the parts are clearly shown. Catalogues shall have exploded views of components for clarity where needed.
- 13.3 The following information shall be given in tabular form:
- 13.3.1 Designation of apparatus or item of equipment.
- 13.3.2 Description of part including information such as dimensions, sizes, resistance values, stranding, material, current ratings, etc.
- 13.3.3 Catalogue number.
- 13.3.4 Manufacturer's name.
- 13.3.5 "As Built" drawing and item number where applicable.
- 13.3.6 Quantity of parts required for each piece of apparatus.
- 13.3.7 Illustrating photographs or sketch number.
- 13.3.8 Nato registration where applicable.
- 13.4 In a suitable section of the catalogue the following information shall be given:
- 13.4.1 Index to "As Built" Drawings.
- 13.4.1.1 "As Built" drawing number.
- 13.4.1.2 Heading.
- 13.4.1.3 Parts shown on drawing.
- 13.4.2 Index to catalogue numbers.
- 13.4.2.1 Catalogue numbers in numerical order.
- 13.4.2.2 Catalogue volume number, where applicable.
- 13.4.2.3 Section in which part is listed.
- 13.4.2.4 Page number.
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- 13.4.3 Special tools.
- 13.4.3.1 Designation and description of special tools.
- 13.4.3.2 Catalogue number.
- 13.5 Each volume shall be neatly bound in hard serviceable cover on which the contract numbers volume number and titles are printed. All the information in the catalogues shall be given in a clear legible manner. The catalogues shall include all items of equipment to be supplied by the successful tenderer.
- 13.6 *Catalogues shall be delivered before date of completion of the contract.*
- 14.0 INSTRUCTION MANUALS**
- 14.1 Tenderers shall submit a separate quotation for the supply of the number of copies of instruction manuals specified in the Schedule of Requirements. The size shall be A4 (297 mm x 210 mm). Consideration shall be given on merit of the supply of these catalogues electronically (PDF format).
- 14.2 The successful tenderer shall submit draft instruction manuals for approval prior to final printing/compiling and delivery.
- 14.3 The approved instruction manuals shall be delivered before commissioning the equipment. If this cannot be met, the successful tenderer shall furnish at least three copies of preliminary instruction manuals, suitable for the use of maintenance staff, until the final instruction manuals are to hand (which shall be before the date of completion of the contract).
- 14.4 The construction, method of operation and purpose of all items of equipment shall be fully explained by means of descriptions and photographs, sketches, drawings or circuit diagrams showing all details.
- 14.5 The information contained in the instruction manuals shall be classified into convenient sections and indexed. Where multiple models are produced each model shall be described in a separate section in such a manner that models not applicable can be omitted. Where possible the sections shall be subdivided as follows:
- 14.5.1 Installation and commissioning.
- 14.5.2 General description and method of operation.
- 14.5.3 Maintenance and inspection.
- 14.5.4 Overhaul and repair of equipment.
- 14.5.5 Technical and maintenance data.
- 14.5.6 Test procedure flow charts.
- 14.5.7 Fault finding and trouble shooting.
- 14.6 The method of calibrating, setting or adjusting all equipment requiring such attention shall be described and where necessary illustrated. The necessary data shall be given in each case to enable the equipment to be checked by measurement if required.
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14.7 Full step-by-step instructions regarding the servicing and repair of the equipment shall be given together with all the necessary data such as dismantling and assembling procedures, working clearances, tolerances, limits, fits, maximum permissible wear, recommended lubricants, use of special tools, insulation and winding data, spring pressures and tensions, brush data, fuse data, etc. Recommended servicing/rework/replacement of parts frequencies shall also be included in the maintenance and inspection section of the instruction manual.

14.8 Any delay in delivery of the complete supply of satisfactory instruction manuals/preliminary manuals as provided for in this clause, will subject the Contractors to a deduction from the contract sum, of a penalty as defined in the tender, counting from the specified delivery time until such time as the said manuals are delivered.

15.0 COMBINED DOCUMENTS

If desired the catalogues and instruction manuals specified in clauses 12.0 and 13.0 may be combined into single volumes. Tenderers shall state whether or not it is their intention to do so. In this case the delivery shall be as specified in clause 13.3, alternatively the conditions described in clause 13.8 applies.

16.0 SPARES LIST

16.1 To enable Spoornet to catalogue and timeously acquire all spares required, the following information shall be submitted before commissioning of equipment:

16.1.1 An itemised schedule of the spares (with reference to alternatives) which are recommended for normal maintenance purposes.

16.1.2 The quantity recommended to be held against each item on the spares list and where sets are supplied, the types and quantity per type to make up a set.

16.1.3 A full and complete ordering description and number of each individual spare with drawing number if relevant.

16.1.4 Where the ordering description and number differs from that of the original manufacturer's catalogue, description and number, the original manufacturer's name, description, type and ordering number shall be listed as well as all other relevant data available.

16.1.5 The national stock number - Nato - number of each spare where the particular spare was imported from a Nato country and where a national stock number was allocated.

16.2 Initially the spares list containing the above information will suffice, but this list shall not in any way replace or supersede the spare parts catalogue mentioned in clause 12.0.

17.0 PACKING OF DRAWINGS, CATALOGUES, INSTRUCTION MANUALS AND SPARES LISTS

All items shall be packed in such a way that they are received in good condition.

18.0 SUBSTITUTION

This specification replaces specification CEE.0224.94

TENDERER'S SIGNATURE: _____

DATE: _____

FOR SPOORNET: _____

GRADE: _____

END

SCHEDULE OF REQUIREMENTS

FOR SPOORNET: _____

GRADE: _____

END

RISK MANAGEMENT: ENVIRONMENT AND SUSTAINABILITY

NAME OF DOCUMENT:

TFR STANDARD ENVIRONMENTAL SPECIFICATIONS (SES)



Document number	EMS - WI – JHB - 001
File reference number	TFR/EMS (SES) – 001
Revision number	01-00
Effective date	AUGUST 2014
Approver Name	VINCENT MATABANE (senior Manager: Environment & Sustainability)
Approver Signature	<i>V. Matabane</i>
Approval Date	16/09/2014

EMS PROCEDURES MANUAL - EMS ELEMENT 4.4.6: OPERATIONAL CONTROL	DOCUMENT NR: EMS - WI – JHB - 001 REVISION: 01-00
DOCUMENT TITLE: TFR STANDARD ENVIRONMENTAL SPECIFICATIONS (SES)	DATE: 2014/08/01 FILE REF: TFR/EMS (SES) – 2014/001

SUMMARY REVISION CONTROL

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1. DEPARTMENT CODES

Description	Code
Corporate Safety Office	CSO
Environment and Sustainability	E&S
Enterprise Risk Management	ERM
Finance	FIN
Human Capital Management	HCM
Information and Communications Technology	ICTM
TFR Operations	OPS
School-of-Rail	SoR

2. MANAGEMENT SYSTEM CODES

Description	Code
Environmental Management System	EMS
Integrated Management System	IMS
Occupational Health and Safety Management System	OHSA
Quality Management System	QMS
Safety Management System	SMS

3. DOCUMENTATION TYPE CODES

Description	Code
Certificate	CR
Contract	CT
Form	FM
Guideline	GU
Learner Guide	LG
List	LI
Manual	ML
Memorandum	MM
Policy	P
Policy Manual	PM
Procedure	PR
Process	PS
Work Instruction	WI
Standard Operation Procedure	SOP

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4. PURPOSE

This standard describes the minimum environmental management standards to which TFR project managers, contractors and sub-contractors must conform to while undertaking construction work on construction site. It is a generic standard for use across all construction works within Transnet Freight Rail.

Construction works have the potential to adversely impact the environment. The purpose is to assess, rectify and manage the activities that have potential to cause environment degradation.

One of Transnet Freight Rail (hereinafter referred to as “TFR”) environmental strategies is the establishment and maintenance of an Environmental Management System, aligned to the International Standard, ISO 14001. Linked to this is a commitment to the development and implementation of Environmental Management Plans (EMP) for TFR construction activities. The purpose therefore can be summarised as follows:

The main purpose of this standard is to foster environmental due diligence and sustainability into contractor's activities which can be achieved by:

Managing potential negative environmental impacts of activities,
Identifying management plans to mitigate these impacts,
Allocating responsibilities and resources to implement identified plans,
Monitoring the effectiveness of these measures.

5. SCOPE AND APPLICABILITY

This standard applies to all contractors that perform construction, maintenance and renovations works on Transnet Freight Rail (TFR) properties.

6. LEGISLATIVE REQUIREMENTS

A numbers of environmental laws and regulations present TFR with an obligation to monitor, interpret and implement systems to comply with legal requirements.

The list of environmental legislation below was compiled to ensure that contractors working on TFR land properties are aware of legal responsibilities and liabilities. Complying with these laws and regulations will assist in minimising the risks, both legal and financial (claims).

Non-compliance to environmental law is a criminal offence and if prosecuted offenders will be liable for any environmental damage incurred. Moreover, TFR subscribes to polluter-pays and duty of care principles.

ASPECT	REFERENCE/LEGISLATION
Socio cultural issues & Environmental Management	- Constitution of the republic of South Africa 108 of 1996 - Occupational Health and Safety Act No. 85 of 1993
Environmental Authorizations – applicable to the project	National Environmental Management Act (Act 107 of 1998)
Dust Management	National Environmental Management Act – Air

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	Quality (Act 39 of 2004) Atmospheric Prevention Pollution Act No. 45 of 1965
Work close to protected areas	National Environmental Management Act – Protected Areas Act (Act 57 of 2003)
Work along coastline	National Environmental Management Act – Integrated coastal management Act (Act 24 of 2008)
Fire Hazards	National Veld and Forest Fires Act No. 101 of 1998
Applicable Minimum Standards	- Standard Acts No. 29 of 1993 - ISO 14001-2004 - ISO 9001 – 2008 - OHSAS 18001 – 2007 - SANS 10103:2004
Site establishment and Access	- Fencing Act No. 31 of 1963 ⇒ Prohibition of damage to a property owner's gate and fences ⇒ Climbing or crawling over or through fences without permission ⇒ Closing of gates. - Conservation of Agricultural Resources Act No. 43 of 1983 ⇒ Soil conservation - Atmospheric Pollution Prevention Act No. 45 of 1965 ⇒ Control all forms of air pollution – dust, vehicle fumes
Water Management	- National Water Act No. 36 of 1998 ⇒ All aspects relating to pollution of surface and ground water. - National Water Services Act No. 108 of 1997 ⇒ Permits required for use of water and disposal of water effluent.
Flora & Fauna	- National Environmental Management Act – Biodiversity Act (Act 10 of 2004) - Sea Shore Act No. 21 of 1995 - National Forest Act No. 84 of 1998 ⇒ Control of veld, forest and mountain fires ⇒ The protection of biota and ecosystems ⇒ Protected trees ⇒ Fire control areas. - Conservation of Agricultural Resources Act No. 43 of 1983 ⇒ Control of alien invasive

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	• Environment Conservation Act No. 73 of 1989 ⇒ Protected natural environment. • National Environmental Management Act No. 107 of 1998 ⇒ Duty of care & remediation of environmental damage.
Waste Management	• National Environmental Management Act – Waste Act (Act 59 of 2008) • Dumping at Sea Control Act No. 73 of 1980 • Marine Living Resources Act 18 of 1998 • National Water Act No. 36 of 1998 ⇒ All aspects relating to pollution of surface and ground water. • Advertising on Roads and Ribbon Development Act No. 21 of 1940 ⇒ Prohibition of depositing or leaving of certain articles or material near certain roads. ⇒ Waste near roads. • Environmental Conservation Act No. 73 of 1989 ⇒ Controls for the effective protection and utilisation of the environment ⇒ Littering, waste disposal, noise and various other activities which may have a detrimental effect on the environment. • Occupational Health and Safety Act No. 85 of 1993 ⇒ Exposure of workers to waste products. ⇒ Transportation and disposal of hazardous chemical substances. • Health Act No. 63 of 1977 ⇒ Control of health aspects of waste disposal and water treatment.
Spillages of Hazardous Substances	• Hazardous Substances Act No. 15 of 1973
Protection of heritage resources	• National Heritage Resources Act 25 of 1999 • Environmental Conservation Act No. 73 of 1989
	• Transnet Freight Rail Safety, Health and Environmental Policy
	• Transnet Freight Rail Construction Environmental Management Plan (CEMP)

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7. STANDARDS FOR ENVIRONMENTAL MANAGEMENT

The contractor shall identify the potential environmental impacts that may occur as a result of their activities and accordingly prepare method statement describing how each of the impacts will be managed or prevented so that the standards set out in this document are achieved.

7.1 SITE ESTABLISHMENT AND ACCESS

7.1.1. Objective

To ensure that environmental issues are taken into account during the establishment of site offices and all other facilities on site.

7.1.2. Scope

This standard applies to all activities relating to the planning, site establishment, operation and closure of the site.

7.1.3. Site plan

The contractor shall establish his construction camps, offices, workshops, staff accommodation and any other facilities on site in a manner that does not adversely affect the environment. However, before construction can commence, the contractor shall submit to the Construction Manager for his approval; plans of the exact location extend and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place to remedy any effects.

The plans shall detail the locality as well as the layout of all waste management facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas. It is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated in the plan. Such a site plan shall be submitted for Construction Manager's approval.

7.1.4. Provision of sanitary facilities

Particular reference in the site establishment plan shall be given to any need for handling of sewage to be generated at the site offices, staff accommodation and at all localities on the site, where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of the Environmental Manager.

Safe and effective sewage treatment will require one of the following sewage handling methods: Septic tanks and soak – away, dry-composting toilets such as “enviro loos”, or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage facility will depend on the location of the site and the surrounding land uses, the duration of the contract and proximity (availability) of providers of chemical toilets. The location shall be decided with input from Environmental Manager. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis.

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Toilet and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of open areas (i.e. the veld) shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from being blown. The toilets shall also be placed outside areas susceptible to flooding. The contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such facilities in a clean, orderly and hygienic condition to the satisfaction of the construction manager.

7.1.5. Access

If private property has to be crossed in order to access the construction site, the landowner(s) should be approached to request access.

No fences or gates that provide access to the construction sites may be cut, lowered, removed or damaged in any way. Private gates should be left as they are found (open or closed). Any irregularities caused by the construction team concerning fences and gates (e.g. an open gate or lowered fence) should be investigated.

7.1.6 Water supply for human use

7.1.6.1. Objective

To ensure that there is adequate, safe water supply for all personnel on site.

7.1.6.2. Scope

Managing the water supply on site and controlling the abstraction of water from natural resources in the area.

7.1.6.3 Water Management

Oil, petrol, diesel, herbicides, cleaning solvents, etc. must not be allowed to contaminate any surface water, ground water and / or drainage systems. Storm water shall be managed to ensure that it does not become polluted. If the substation site is located close to a river, stream, dam, borehole, or the water table is high; contingency plans must be in place to minimise the impact of accidental oil or toxic spillages. All water contaminated by oil or toxic spills must be reported to the Department of Water Affairs and Forestry, via approved reporting procedures.

Storm water run-off must be efficiently managed and must not cause erosion or damage to surrounding property. Guidance on methods to improve drainage of the site erosion should be directed to TFR Infra for Civil Engineering inputs.

Drainage systems must be kept clean and clear of any debris at all times.

7.1.7 Collection of water from natural resources

No water for domestic use (drinking water, for bathing or washing) shall be abstracted from any water resource (stream, river, or dam) without the express permission of the TFR Project Manager. Such permission shall only be granted once it can be shown that the water is safe for use, that there is sufficient water in the resource to meet the demand, and once permission has obtained from the Department of Water Affairs in accordance with the requirements of the National Water Act (Act 36 of 1998).

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7.1.8 Provision of drinking water

Water for human consumption shall be available at the site offices and at other convenient locations on-site. The generally acceptable standard is that a supply of drinking water shall be available within 200m of any point on the construction site.

7.1.9 Provision of energy for camp site

7.1.9.1. Objective

To prevent illegal and unauthorized collection of firewood.

7.1.9.2. Scope

This is applicable to all activities that may require collection of firewood.

7.1.9.3. Collection of firewood

The contractor shall provide adequate facilities for all staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction heating and cooking purposes. No open fires shall be allowed.

7.2. WASTE MANAGEMENT.

7.2.1. Objective

To ensure that all waste generated during construction and commissioning of the facilities is properly disposed of.

7.2.2. Scope

This standard applies to all construction, commissioning and site activities that may lead to the generation of waste.

7.2.3. Approach

Waste is grouped into general or hazardous depending on its characteristics. The classification determines handling methods and the ultimate disposal of the material.

General waste to be expected during construction includes the following:

- Trash (waste paper, plastics, cardboard, etc.) and food waste from offices, warehouses and construction personnel.
- Uncontaminated construction debris such as used wood and scrap metal.
- Uncontaminated soil and non-hazardous rubble from excavation or demolition.

Hazardous waste means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical characteristics, such as toxic, ignitable, corrosive, carcinogenic or other properties or toxicological characteristics of that waste, have a detrimental impact on health and the environment.

7.2.4. Waste Hierarchy

A hierarchical control approach to waste management is encouraged. Waste should preferably be managed in the following order:

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Prevent: waste avoidance and minimisation during production

Recycle: waste recycling, recovery and utilisation

Treat: waste treatment in order to reduce toxicity and to minimise the quantities of waste

Disposal: waste disposal, probably by incineration, destruction or landfill.

7.2.5. Waste management

Littering is prohibited at all times. The contractor is responsible for the removal of all waste from site generated through the contractor's activities. The construction works site should have a proper waste collection facility and a disposal system in place. Waste should only be disposed of at a registered facility – this refers to municipal dumps. The latest list of waste sites in the region is available from the Department of Water Affairs, Department of Environmental Affairs and www.sawic.org.za.

The classification of waste determines handling methods and ultimate disposal of the material. The contractor shall manage hazardous wastes that are anticipated to be generated by his operations as follows:

- Characterise the waste to determine it is general or hazardous
- Obtain and provide an acceptable container with label
- Place hazardous waste material in container
- Inspect the container on a regular basis as prescribed by the contractor's waste management plan
- Track the accumulation time for the waste
- Haul the full container to the disposal site
- Provide documentary evidence of proper disposal of the waste to TFR Environmental Management.

The contractor's Environmental Officer must work in conjunction with the contractor's Safety and Industrial Hygiene personnel to create a hazardous materials management program.

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This program will establish the necessary protocol for proper handling and removal of hazardous material on site.

Information on each hazardous substance must be available to all persons on site in the form of Material Safety Data Sheets (MSDS). Training and education about proper use of MSDS, handling, and disposal of the waste must be provided to all workers handling the waste. The contractor's environmental officer must be informed of all activities that involve the use of hazardous substances to facilitate prompt response in the event of a spill or release.

All hazardous waste must be suitably enclosed, labelled and stored. The storage area must be properly demarcated and cordoned-off as per legislation. General and hazardous waste must be stored in separate bins. Recycling and re-use is mandatory. Under no circumstances is waste, including cleared vegetation, is to be burnt at the construction work site.

The contractor is obliged to control waste generating activities of both Hazardous and non-Hazardous waste by:

- Eliminating waste generation or reducing the total volume,
- Reducing the degree of contamination of waste generated,
- Reclaiming materials otherwise considered waste.

The contractor shall recycle general waste that is anticipated to be generated by its operations as follows:

- Obtain and label recycling containers for:
 - Office waste
 - Aluminium
 - Steel
 - Glass
 - Ferrous metals
 - Non Ferrous metals
 - Waste timber
 - And locate them within temporary office building and trailers
- Establish recycled material collection schedule
- Arrange for full bins to be hauled away

7.2.6. Effluent management

All effluent water from the camp/office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water courses (streams, rivers, pans dams etc.). Only domestic type waste water shall be allowed to enter the designated system. Any release of contaminated waste water shall be in accordance with applicable water release standards and permits.

7.3. VEHICLE & EQUIPMENT REFUELLING

7.3.1. Objective

To eliminate or control fuel and oil spillage at refuelling facilities

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7.3.2. Scope

This standard applies to all refuelling, lubrication and oil changing requirements on all vehicles and machinery.

7.3.3. Refuelling

The use of engine driven compressors, pumps, air conditioners and arc welders could generate leaks (usually oil) that can accumulate to become spills, which require clean-up. These leaks become more evident if the equipment remains in the same place for an extended period of time. Damaged fuel tanks, fuel hoses, and fuel pumps can be sources of significant fuel leaks. Hydraulic systems can blow gaskets or hoses resulting in large quantities of hydraulic fluid spilled to the ground.

7.3.3.1. Control

No vehicles or machines shall be serviced or refuelled on site except at designated servicing or refuelling locations. No oil or lubricant changes shall be made except at designate locations, unless in case of breakdown or emergency repair. As part of the method statement, the contractor shall submit to TFR, a standard operating procedure for fuelling.

The contractor shall store fuel and oil at a designated area, which shall be banded to contain 110% of the total volume, the bund wall shall be designed or constructed with an impervious layer or liner or paved surface to prevent spillage from entering the ground.

As part of the method statement, the contractor shall provide details of its proposed fuel storage and fuelling facility to the TFR Environmental Officer for approval. The design shall comply with the regulations of the National Water Act No. 36 of 1998. The Hazardous Substances Act No. 15 of 1973, the Environmental Conservation Act No. 73 of 1989 and the Occupational Health and Safety Act No. 85 of 1993, with special reference to the requirements of the Hazardous Chemical Substances Regulations.

7.3.3.2. Spill Response

The contractor shall comply with the regulations of the National Water Act No. 36 of 1998, the Hazardous Substances Act No. 15 of 1973, the Environmental Conservation Act No. 73 of 1989 and the Occupational Health and safety Act No. 85 of 1993, when responding to spillage incidences.

The contractor shall provide details for approval by the TFR Environment, Fire and Hazmat Manager of its spill response plan prior to commencing work on site. The plan will show measures to be taken to remove contaminated soils from site and demonstrate complete removal of contamination in the event of spills.

The contractor shall instruct own personnel on the following spill prevention and containment responsibilities:

- Immediately repair all leaks of hydrocarbons or chemicals,
- Take all reasonable means to prevent spills or leaks,
- Do not allow sumps receiving oil or oily water to overflow,
- Prevent storm water runoff from contamination by leaking or spilled drums of oil or chemicals,
- Do not discharge oil or contaminants into storm water or sewer systems.

If the spill occurs on land, the contractor must:

- Immediately stop or reduce the spill,

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- Contain the spill,
- Recover the spilled product,
- Remediate the site,
- Implement actions necessary to prevent the spill from contaminating groundwater or off-site surface water,
- Dispose of contaminated material to a location designated thereto and submit disposal certificate to TFR Environment, Fire and Hazmat Manager.

Any spill to water has the potential to disperse quickly; therefore, the spill must be contained immediately using appropriate containment equipment.

If a spill to water occurs, the contractor must:

- Take immediate action to stop or reduce the spill and contain it,
- Complete section 30 Report and Notify the appropriate on-site authorities,
- Implement actions necessary to prevent the spread of the contamination by deploying booms and/or absorbent material,
- Recovery of the spilled product,
- Proper disposal of spilled material.

7.4. SPRAY PAINTING & SAND BLASTING

7.4.1. Objective

To ensure that all the spray painting and sand blasting on site is conducted in a controlled manner where appropriate measures are taken to prevent paint contamination of the soil and to ensure that sandblasting grit/media is properly contained and disposed of.

7.4.2. Scope

Applicable to all spray painting and sandblasting on site.

7.4.3. Spray Painting and Sand Blasting

Spray painting and sand blasting should be kept to a minimum. All painting should, as far as practicable, be done before equipment and material is brought on site. Touch-up painting is to be done by hand painting or by an approved procedure. This should form part of the method statement to be submitted to the TFR Environmental Manager for approval.

The relevant contractor will inform his Environmental Officer of when and where the spray painting or sand blasting is to be carried out prior to commencement of work. The Environmental Officer will monitor these activities to ensure that adequate measures are taken to prevent contamination of the soil.

NB: if the area is in confined or high (elevated) areas, a protection plan must be issued for approval.

7.5. DUST MANAGEMENT

4.5.1. Objective

To prevent/control the generation of dust on the construction site and access roads.

4.5.2. Scope

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Contractors (associated with activities such as earthworks, geotechnical surveys, pilling storm water drainage, construction of roads and railways, foundations, brick building, operation workshops, fencing, erecting construction camps and batch plant activities, etc.) shall submit a dust control plan for approval by the TFR Environmental Manager.

7.5.3. Management of Dust

Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds. If necessary, the load bin of the vehicle shall be covered with a tarpaulin to prevent dust.

Dust is to be controlled on unpaved access roads and site roads using sprayed water contractors are responsible for managing dust generated as a result of their activities. The contractor will be responsible for dust control of the entire construction area.

Some dust control measures which are normally applied during construction are presented in this section for inclusion by the contractor in his dust control method statement.

The dust mitigating procedures include the following:

- Limit vehicle speeds on unpaved roads to 20km/h
- Wash paved surfaces within the construction area twice a week
- Minimise haulage distances
- Apply water to gravel roads with a spraying truck when required
- Environmentally friendly soil stabilisers may be used as additional measures to control dust on gravel roads and construction areas
- Construction material being transported by trucks must be suitably moistened or covered to prevent dust generation.
- Strip and store topsoil in separate stockpiles with mounds not exceeding 2meters in height to, among other things, prevent wind-blown dust.
- Minimise disturbances of natural vegetation during right of way construction (e.g. erection of fences) to reduce potential erosion, runoff and air-borne dust.
- Implement a system of reporting excessive dust conditions by construction personnel (as instructed through Environmental Awareness Training)

Water for dust control shall be taken ONLY from approved sources.

7.6. STORM WATER & DEWATERING MANAGEMENT

7.6.1. Objective

To ensure that storm water and dewatering drainage across the site occurs in a manner that will negate contamination by oils, fuels, litter and other waste to prevent erosion of the construction terrace.

7.6.2. Scope

All runoff and dewatering activities.

7.6.3. Storm Water and dewatering management

Water is a valuable resource. Both the quality and quantity of the water used by the contractor should be considered in making resource conservation plans.

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Construction activities that may potentially impact on surface water and groundwater are: runoff and percolation; dewatering activities; and miscellaneous liquid wastes associated with construction activities.

In general, construction activities may affect water quality and/or quantity of groundwater and/or surface water of the area.

The contractor shall be aware that, apart from runoff from overburden emplacements and stockpiles, storm water can also be contaminated from batch plants, workshops, vehicle wash-down pads, etc., and that contaminants during construction may include hydrocarbons from fuels and lubricants, sewerage from employee ablutions and excess fertilizer and rehabilitated areas, etc.

The contractor shall take note that discharges to controlled waters such as sea, rivers, and groundwater or to sewerage systems are controlled under South African water Legislation.

7.6.3.1 Surface runoff

Construction activities such as surface grading and excavation will disturb surface areas on site. This will increase the potential for soil erosion and subsequent sediment transport during periods of precipitation runoff or when excavation dewatering is required. Construction activities have a potential to change local surface drainage and sediment transport patterns, site floodplain delineation, and percolation rates into soil.

7.6.3.2 Dewatering

Dewatering during groundwork produces a surface water discharge that will require collection and sedimentation. Dewatering also has a potential to affect groundwater quality and quantity.

7.6.3.3 Management Requirements

Temporary drainage must be established on site during construction period until permanent drainage is in place. Contractors are responsible for maintaining the temporary drainage in their areas. Contractors must provide secondary drainage that prevents erosion.

Contractors must employ good housekeeping in their areas to prevent contamination of drainage water.

The contractor shall clear stagnant water.

Specific water management measures (surface and groundwater) for incorporation by Civil/Earthworks contractors into their EMP's include the following:

The Contractor shall ensure that no contaminated surface water shall flow off-site as a result of Contractor operations. Silt traps shall be constructed to ensure retention of silt on site and cut-off ditches shall be constructed to ensure runoff from the site except at point where silt traps are provided.

If applicable, the Contractor shall be responsible for collection, management and containment within the site boundaries of all the dewatering from all general site preparation activities. The dewatering water shall be contained within the site boundaries by subsequently pumping or routing water to and from sub-areas within the site as the

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construction activities precede. No discharge/dewatering to off-site land or surface water bodies will be allowed.

On-site drainage shall be accomplished through gravity flow. The surface drainage system shall consist of mild overland slopes, ditches and culverts. The graded areas adjacent to buildings shall be sloped away with a 5% slope. Other areas shall have a minimum slope of 0.2% or otherwise indicated.

Ditches shall be designed to carry a 25-year storm event with velocities in accordance to minimise erosion. Erosion protection shall consist of suitable stabilising surfaces in all ditches.

Culverts shall be designed to ensure passage of the 25-year storm peak runoff flow.

Both structural and non-structural (vegetation) erosion control measures will be designed, Implemented, and properly maintained in accordance with best management practices which will include the following:

Scheduling of activities to minimise the amount of disturbed areas at any one time.

Implementation of re-vegetation as early as feasible.

Limiting construction traffic and/or avoidance thereof on access roads and areas to be graded to the extend feasible at drainage ditches.

Compacting loose soil as soon as possible after excavation, grading and filling.

Using silt fences, geo-textiles, temporary rip-rap, soil stabilisation with gravel, diversionary beams and swales, small sedimentation basins, and gravelled roads to minimise transport of sediment.

Implementing the erosion and sedimentation control plan and ensuring that the construction personnel are familiar with and adhere to.

Managing runoff during construction

The contractor shall be responsible for checking and maintaining all erosion and sedimentation control.

7.7. NOISE MANAGEMENT

7.7.1. Objective

To maintain construction noise at the site within legal limits

7.7.2. Scope

Any noise generated at the construction site.

7.7.3. Noise Management

Keep all equipment in good working order.

Operate equipment within specifications and capacity and don't overload the machines.

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Apply regular maintenance, particularly with regards to lubrication

Operate equipment with appropriate noise abatement accessories, such as sound hoods and ear plugs.

Noise control measures for incorporation by the contractor in its noise control plan shall include the following:

Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, *SANS 10103:2004*, so that it will not produce excessive and undesirable noise when released.

The entire Contractor's equipment shall be fitted with effective exhaust silencers and shall comply with the South African Bureau of Standards recommended code of practice, *SANS 10103:2004*, for construction plant noise generation.

All the Contractor's vehicles shall be fitted with effective exhaust silencers and shall comply with the Road Traffic Act, (Act 29 of 1989) when any such vehicle is operated on a public road.

If on-site noise control is not effective, protect the victims of noise (e.g. ear-plugs) by ensuring that all noise-related occupational health provisions are met. (Occupational Health and Safety Act, (Act 85 of 1993))

7.8. PROTECTION OF HERITAGE RESOURCES

7.8.1. Objective

To ensure the protection of archaeological, historical artefacts, or heritage resources discovered during construction activities.

7.8.2. Scope

Archaeological, Historical Artefacts, or Heritage resources discovered on or near the site.

7.8.3. Archaeological sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such a discovery. The South African Heritage Resources Agency (SAHRA) is to be contacted and will appoint an archaeological Consultant. Work may only resume once clearance given in writing by the Archaeologist.

7.8.4 Graves and Middens

If a grave or midden is uncovered on site, or discovered before commencement of work, all work in the immediate vicinity of the graves/middens shall be stopped and the engineer be informed of the discovery. The National Monuments council should be contacted and in the cases of graves, arrangements made for an undertaker to carry out an exhumation and reburial. The undertaker will, together with the National Monuments Council, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

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7.9. PROTECTION OF LIVESTOCK & GAME

7.9.1. Objective

To prevent illegal activities potentially perpetrated by staff and to prevent the killing of any animals trapped in the construction works or discovered on the construction site or surroundings.

7.9.2. Scope

Managing the activities of site staff during work and after hours.

7.9.3. Poaching of Livestock or Game

On no account shall any hunting or fishing activity of any kind be allowed. This includes setting of traps, or the killing of any animal caught in the construction works.

7.9.4 Killing of animals

On no account shall any animal, reptile or bird of any sort be killed, this specifically includes snakes or other creatures considered potentially dangerous discovered on site. If such an animal is discovered on site an appropriately skilled person should be summoned to remove the creature from the site. Consideration should be given to selection and nomination of such person prior to site establishment. If no-one is available, training should be provided to at least two site staff members.

7.10. FIRE PREVENTION

7.10.1. Objective

To minimise the risk of uncontrolled fires.

7.10.2. Scope

All activities on or near the site that could initiate and uncontrolled fire.

7.10.3. Fire Control

Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites. All conditions incorporated in the requirements of the Occupational Health and Safety Act shall be implemented.

7.11. SPILLAGE OF HAZARDOUS SUBSTANCES

7.11.1. Hazardous Spillages Reporting & Records Keeping

In the event of a spillage, the incident will be reported (according to the TFR Occurrence Procedure: IMS PR 014). The investigation report should be copied to the Environmental Manager for record keeping.

Mobile oil clean-up kits must be available for accidental spills. The mobile kit should be available on any vehicle transporting oil containing materials.

In the event of an oil spill, the first priority is to contain the spill. The emergency programme for oil spills, as developed during the Method statement must then be followed. It is preferred that spillages and contaminated areas are treated on site. However, circumstances may necessitate the removal of contaminated soil for treatment – this area must be clearly demarcated and cordoned off.

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Bund walls should be secure from leaks and damage. Oil traps must be pumped out regularly and remain free of debris. Oil taps should be securely closed unless it is necessary for water to be drained from the bund area.

7.12. HANDLING & BATCHING OF CONCRETE AND CEMENT

7.12.1. Objective

To control cement and concrete batching activities so as to prevent the spillage of cement waste water and potential contamination of soil, groundwater and marine environment (where applicable). To avoid or substantially reduce dust emissions caused by cement and concrete activities on site ensure that no noise nuisance results from batching activities.

7.12.2. Scope

Cement and concrete batching activities commonly produce cement-laden (contaminated) runoff, mainly from washing of mixing equipment. The contaminated runoff is alkaline and contains high levels of chromium, which causes leachate that may ultimately contaminate groundwater. Cement contaminated water can also increase the pH level of marine waters and cause detrimental damage to aquatic life.

Fine dust particles containing cement and concrete are pollutants and can cause damage to neighbouring amenities when allowed to spread. Excessive noise during batching may cause stress to employees on site and other people within the construction vicinity.

This standard applies to all cement and concrete batching activities, delivery of ready mix concrete and small scale mechanical & hand mixing of concrete and cement, as well as the washing of equipment used in these activities on construction sites managed by TFR.

7.12.3. Handling and batching of concrete and cement

7.12.3.1. Siting

Concrete batching shall only be conducted in demarcated areas which have been approved by the TFR Project Manager. Such areas shall be fitted with a contaminated facility for the collection of cement laden water. This facility shall be bunded and have an impermeable surface protection so as to prevent soil and groundwater contamination.

Drainage of the collection facility will be separated from any infrastructure that contains clean surface runoff. The batching facility will not be placed in areas prone to floods or the generation of stagnant water. Access to the facility will be controlled so as to minimise potential environmental impacts.

7.12.3.2. Handling and Storage

Hand mixing of cement and concrete shall be done on a mortarboard and/or within the bunded area with impermeable surface or concrete slab.

Bulk and bagged cement & concrete additives will be stored in an appropriate facility at least 10meters away from any watercourses, gullies and drains.

Waste water collected in the containment facility shall be left to evaporate. The contractor shall monitor water levels to prevent overflows from the facility. Water can be pumped into sealed drums for temporary storage and must be disposed of as liquid hazardous waste.

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All concrete washing equipment, such as shovels, mixer drums, concrete chutes, etc. shall be done within the washout facility. Water used for washing shall be restricted as far as practically possible.

The contractor shall periodically clean-out hardened concrete from the wash-out facility or concrete mixer, which can either be reused or disposed of as per accepted waste management practices and procedures.

Empty cement and concrete bags, if temporarily stored on site, will be secured with adequate binding material.

Sand and aggregates containing cement will be kept damp to prevent the generation of dust.

7.12.3.3. Disposal

Concrete or Cement or any solid waste materials containing concrete and cement will be disposed of at a registered disposal facility. Where disposal facilities for general waste are utilised, written consent from the relevant municipality must be obtained.

7.13. EROSION PREVENTION

7.13.1. Objective

To prevent Soil Erosion

7.13.2. Scope

All bare soil ground areas susceptible to erosion including gravel roads.

7.13.3. Erosion Prevention

All vehicle movements must be along existing roads and tracks. Vehicles should be driven at moderate speeds and within legal limits. Special care should be taken (especially in wet weather) to avoid eroding tracks. A single access track / road is to be used and multiple tracks are to be avoided at all times. In urban areas, access roads should be treated, where necessary, to avoid dust pollution.

Erosion of the access road, which cannot be remedied by simple compaction methods, should be referred to the TFR Infra for further assessment and recommendations. Soil binding agents and gabions are frequent methods used to combat erosion.

7.14. REHABILITATION

7.14.1. Objective

To ensure that all areas affected by the project are appropriately rehabilitated and re-vegetated in a manner congruent with the surrounding biophysical environment. The prevention of spread of alien invasive species.

7.14.2. Scope

All areas affected by the project including lay down areas.

7.14.3. Rehabilitation

Contractors shall rehabilitate their lay-down area/s upon completion of work on site. A rehabilitation plan will be submitted to the Construction Manager for approval at least six weeks before completion. The following are critical issues to be included in the rehabilitation plan:

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Details of soil preparation procedures including proposed fertilizers or other chemicals being considered for use.

A list of plant species that will be used in the rehabilitation process. Note these should be indigenous species, and preferably species that are endemic to the area. The assistance of an appropriately qualified Botanist should be sought in developing the list.

Procedures for watering the planted areas (frequency of watering, methodology proposed etc.)

An indication of the monitoring procedures that will be put in place to ensure the successful establishment of the plants (duration and frequency of monitoring, proposed criteria for declaring rehabilitation as being successful)

Procedures for the prevention of establishment and spread of alien invasive species.

7.15. SOCIO CULTURAL ISSUES

In the event that private property is damaged, it must be reported immediately to TFR and the landowner(s). Damage must be repaired to the satisfaction of the landowner (written proof of satisfaction must be obtained). Records of any complaints should be kept.

Local communities must be treated with the utmost respect and courtesy at all times. Infringement of their rights is strictly forbidden.

Stock, crops or activities on the surrounding private property should not be interfered with or disturbed. Wandering around the properties is not permissible (remain within the permitted working areas).

A list of the property owner's names, addresses and telephone numbers must be established and kept updated. A plan of action should be drawn up with the property owners. In case of an emergency (veld fire, vegetation problems etc.) The Contractor's contact names and telephone numbers must be given to these landowners.

The culture and lifestyles of the communities living in close proximity to the work sites must be respected.

Removal (pilfering) of agricultural products (sugar cane, fruit, vegetables, stock, firewood, poaching etc.) is prohibited. Receipts must be obtained for any merchandise purchased or received from land- owners (i.e. for meat, vegetables, wood).

Vehicles must be driven carefully in hazardous road conditions (sharp bends, narrow roads, bad weather, children playing on or near the road, domestic animals on or near the road etc.). Vehicle movement should be kept to a minimum during rain to avoid damage to access and farm roads.

Tribal graves, archaeological sites and sites of historical interest in close proximity to work sites are to be treated with respect and protected.

No firewood is to be collected except with the written consent of the landowner.

A register must be maintained of all complaints or queries received as well as action taken.

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Insure that affected property owners are informed of planned TFR activities on their land.

No off-road travelling is permitted in environmentally sensitive areas (Karoo, fynbos, coastal dunes, vleis and wetlands etc.).

7.16. ENVIRONMENTAL AWARENESS TRAINING

7.16.1. Objective

Environmental Management – Protecting the environment from the effects of construction by making personnel aware of sensitive environmental resources.

Regulatory Compliance – complying with requirements contained in project – specific permit conditions, also complying with requirements in the regional and local regulations.

Problem recognition and communication – training personnel to recognise potential environmental, i.e. spills, and communicate the problem to the proper person for solution.

Liability control – non-compliance with regulatory requirements can lead to personal and corporate liability.

7.16.2. Scope

All Personnel on the construction site.

7.16.3. Environmental Awareness training

An Environmental Awareness Program is considered a necessary part of Construction Environmental Management Plan for the project. Training of the appropriate construction personnel will help ensure that all environmental regulations and requirements are followed to be defined in the relevant Method Statement to be prepared by the Contractor.

All individuals on the Project Construction site will need to have a minimum awareness of environmental requirements and responsibilities. However, not all need to have a degree of awareness. The required degree of knowledge is greatest for personnel in the Safety, Health, and Environmental sections and the least for the manual personnel.

The Contractor shall keep a record of all the environmental related training of the personnel.

8. DOCUMENTATION

The Contractor must produce a method statement.

9. RECORDS

All documents generated in terms of this standard will be classes as records and retained for the life of the project.

PART 4: AFFECTED PROPERTY

Core clause 11.2(2) states

"Affected Property is property which

- Is affected by the work of the *Contractor* or used by the *Contractor* in Providing the Service
- is in the documents which the Contract Data states it is in."

In Contract Data, reference has been made to this Part 4 of the contract for the location of the Affected Property.

1. Description of the Affected Property and its surroundings

1.1. General description

For the supply and installation of 132kV and 66 kV primary bushings for 3kV DC Traction Transformers and Refurbishment of Main and Auxiliary Transformers at the Muldersvlei, Huguenot, Soetendal, Gouda, Sandhills, Hugo, Quarry and Leeu-Gamka Substations.

1.2. Existing buildings, structures, and plant & machinery on the Affected Property

- Muldersvlei Substation
- Huguenot Substation
- Soetendal Substation
- Gouda Substation
- Sandhills Substation
- Hugo Substation
- Quarry Substation
- Leeu-Gamka Substation

1.3. Subsoil information

Not applicable

1.4. Hidden services

Not Applicable

1.5. Other reports and publicly available information

ITEM	DETAILS
Main site Activity	For the supply and installation of 132kV and 66 kV primary bushings for 3kV DC Traction Transformers and Refurbishment of Main and Auxiliary Transformers at the Muldersvlei, Huguenot, Soetendal, Gouda, Sandhills, Hugo, Quarry and Leeu-Gamka Substations